Targa Stockton Terminal Project

Stockton Port District Lease Approval

Tiered Initial Study & Proposed Mitigated Negative Declaration

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TABLE OF CONTENTS

TABLE OF CONTENTS I

LIST OF FIGURES IX

LIST OF TABLES X

LIST OF ATTACHMENTS XII

LIST OF ACRONYMS XIII

1.0 INTRODUCTION 1-1

2.0 ENVIRONMENTAL REVIEW AND APPROVAL 2-1

2.1 SCOPE OF TIERED INITIAL STUDY 2-2

2.2 PUBLIC AGENCY AND REVIEW 2-3

2.3 PROJECT INFORMATION 2-3

2.4 ORGANIZATION OF THE TIERED INITIAL STUDY 2-4

3.0 PROJECT DESCRIPTION 3-1

3.1 PROJECT NAME 3-1

3.2 PROPOSED ACTION 3-1

3.3 REQUIRED PERMITS AND APPROVALS 3-1

3.4 BACKGROUND AND CONTEXT 3-6

3.4.1 Project Need 3-6

3.4.2 Need for Additional Capacity 3-8

3.4.3 Project Objectives 3-8

3.4.4 Development Process 3-9

3.4.5 Distribution of Petroleum Products 3-10

3.4.6 Regional Context 3-10

3.4.7 Project Setting 3-13

3.5 DESCRIPTION OF PROJECT FACILITIES 3-13

3.5.1 Deep-water Channel Berth #9 3-13

3.5.2 Storage Tanks 3-18

3.5.3 Control Building 3-22

3.5.4 Other Buildings 3-22

3.5.5 Truck Loading-rack Canopy 3-24

3.5.6 Railcar Off-loading Rack 3-24

3.5.7 Additive Systems 3-24
3.5.8 Motor Control Center 3-24
3.5.9 Fire Protection 3-25
3.5.10 Lighting 3-25
3.5.11 Security 3-26
3.5.12 Pipeline Supply Connections 3-26
3.5.13 Access and Product Off-site Transport 3-27
3.5.14 Stormwater Runoff Plan 3-29
3.5.15 Oil-water Separator 3-29
3.5.16 Emergency Shutdown System 3-33
3.5.17 Cathodic Protection 3-33
3.6 TERMINAL CONSTRUCTION 3-33
3.6.1 Targa Stockton Terminal Construction 3-33
3.6.2 Pipeline Facility Construction 3-35
3.6.3 Project Schedule, Workforce, and Construction Hours 3-36
3.6.4 Construction Traffic 3-36
3.7 TERMINAL OPERATIONS 3-37
3.7.1 Product Storage 3-37
3.7.2 Ethanol Fuels 3-40
3.7.3 Crude Oil 3-40
3.7.4 Bio Fuels 3-41
3.7.5 Truck Off-loading System 3-41
3.8 SUMMARY OF MITIGATION MEASURES 3-42
3.8.1 Aesthetics (Visual Resources) 3-42
3.8.2 Agriculture and Forestry Resources 3-42
3.8.3 Air Quality 3-42
3.8.4 Biological Resources 3-45
3.8.5 Cultural Resources 3-46
3.8.6 Geology and Soils 3-47
3.8.7 Hazards and Hazardous Materials 3-47
3.8.8 Hydrology and Water Quality 3-49
3.8.9 Land Use and Planning 3-49
3.8.10 Mineral Resources 3-50
3.8.11 Noise 3-50

3.8.12 Population and Housing 3-50
3.8.13 Public Services 3-51
3.8.14 Recreation 3-51
3.8.15 Transportation/Traffic 3-51
3.8.16 Utilities and Service Systems 3-52

4.0 CONSISTENCY WITH 2006 PACIFIC ETHANOL EIR 4-1
4.1 SCOPE OF 2006 PACIFIC ETHANOL EIR 4-1
4.1.1 General Considerations Reviewed in the 2006 Pacific Ethanol EIR 4-1
4.1.2 Description of the Pacific Ethanol Project 4-1
4.2 SCOPE OF THE PROPOSED TARGA PROJECT 4-5
4.3 SIMILARITIES OF THE PROJECTS 4-6
4.3.1 Land Uses 4-6
4.3.2 Operations 4-7
4.4 ADDITIONAL PROJECT CONSIDERATIONS 4-7
4.4.1 Berth #9 Modifications 4-7
4.4.2 Product Pipeline Delivery 4-8
4.5 CONSISTENCY WITH CITY GENERAL PLAN, CITY ZONING, AND STATE ENTERPRISE ZONE 4-9
4.5.1 Zoning Considerations 4-9
4.5.1 General Plan Considerations 4-9
4.5.2 Previous Land Use Decision 4-10
4.5.3 Enterprise Zone Designation of Lease Area, Berth #9 & Pipeline Route 4-10
4.6 SIGNIFICANT AND CUMULATIVE EFFECTS 4-10

5.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 5-1

6.0 DETERMINATION 6-1

7.0 DISCUSSION OF ENVIRONMENTAL SETTING, POTENTIAL IMPACTS, AND MITIGATION MEASURES 7-1
7.1 AESTHETICS (VISUAL RESOURCES) 7-3
7.1.1 Background 7-3
7.1.2 Methodology 7-4
7.1.3 Environmental Setting 7-4
7.1.4 Standards of Significance 7-8
7.1.5 Impacts and Mitigation Measures 7-8

7.1.6 Aesthetics Initial Study Responses 7-9
7.1.7 Responses to Initial Study Questions 7-9
7.2 AGRICULTURE AND FORESTRY RESOURCES 7-11
7.2.1 Background 7-11
7.2.2 Required Permits and Approvals 7-11
7.2.3 Methodology 7-11
7.2.4 Environmental Setting 7-12
7.2.5 Standards of Significance 7-12
7.2.6 Impacts and Mitigation Measures 7-13
7.2.7 Agriculture and Forestry Initial Study Responses 7-14
7.2.8 Responses to Initial Study Questions 7-15
7.3 AIR QUALITY 7-16
7.3.1 Background 7-16
7.3.2 Methodology 7-26
7.3.3 Environmental Setting 7-26
7.3.4 Standards of Significance 7-31
7.3.5 Impacts and Mitigation Measures 7-32
7.3.6 Air Quality Initial Study Responses 7-49
7.3.7 Responses to Initial Study Questions 7-49
7.4 BIOLOGICAL RESOURCES 7-53
7.4.1 Background 7-53
7.4.2 Methodology 7-57
7.4.3 Environmental Setting 7-58
7.4.4 Standards of Significance 7-72
7.4.5 Impacts and Mitigation Measures 7-73
7.4.6 Biological Resources Initial Study Responses 7-76
7.4.7 Responses to Initial Study Questions 7-77
7.5 CULTURAL RESOURCES 7-80
7.5.1 Background 7-80
7.5.2 Methodology 7-85
7.5.3 Environmental Setting 7-85
7.5.4 Standards of Significance 7-87
7.5.5 Impacts and Mitigation Measures 7-88
7.5.6 Cultural Resources Initial Study Responses 7-90

7.5.7 Response to Questions 7-90
7.6 GEOLOGY, SOILS, AND SEISMICITY 7-93
7.6.1 Background 7-93
7.6.2 Methodology 7-93
7.6.3 Environmental Setting 7-93
7.6.4 Standards of Significance 7-99
7.6.5 Impacts and Mitigation Measures 7-99
7.6.6 Geology, Soils, and Seismicity Initial Study Responses 7-101
7.6.7 Responses to Initial Study Questions 7-102
7.7 GREEN HOUSE GAS EMISSIONS 7-106
7.7.1 Background 7-106
7.7.2 Methodology 7-108
7.7.3 Environmental Setting 7-108
7.7.4 Standards of Significance 7-108
7.7.5 Impacts and Mitigation Measures 7-108
7.7.6 Green House Gas Initial Study Responses 7-109
7.7.7 Response to Initial Study Questions 7-109
7.8 HAZARDS AND HAZARDOUS MATERIALS 7-111
7.8.1 Background 7-111
7.8.2 Methodology 7-122
7.8.3 Environmental Setting 7-123
7.8.4 Standards of Significance 7-128
7.8.5 Impacts and Mitigation Measures 7-129
7.8.6 Hazards and Hazardous Materials Initial Study Responses 7-138
7.8.7 Responses to Initial Study Questions 7-139
7.9 HYDROLOGY AND WATER QUALITY 7-143
7.9.1 Background 7-143
7.9.2 Methodology 7-147
7.9.3 Environmental Setting 7-147
7.9.4 Standards of Significance 7-151
7.9.5 Impacts and Mitigation Measures 7-152
7.9.6 Hydrology and Water Quality Initial Study Responses 7-166
7.9.7 Responses to Initial Study Questions 7-167
7.10 LAND USE AND PLANNING 7-171

7.10.1 Background 7-171
7.10.2 Methodology 7-174
7.10.3 Environmental Setting 7-174
7.10.4 Standards of Significance 7-179
7.10.5 Impacts and Mitigation Measures 7-179
7.10.6 Land Use and Planning Initial Study Responses 7-180
7.10.7 Response to Questions 7-181
7.11 MINERAL RESOURCES 7-182
7.11.1 Background 7-182
7.11.2 Methodology 7-182
7.11.3 Environmental Setting 7-183
7.11.4 Standards of Significance 7-183
7.11.5 Impacts and Mitigation Measures 7-183
7.11.6 Mineral Resources Initial Study Responses 7-184
7.11.7 Responses to Initial Study Questions 7-184
7.12 NOISE 7-186
7.12.1 Background 7-186
7.12.2 Methodology 7-195
7.12.3 Environmental Setting 7-198
7.12.4 Standards of Significance 7-198
7.12.5 Impacts and Mitigation Measures 7-198
7.12.6 Noise Initial Study Responses 7-202
7.12.7 Response to Initial Study Questions 7-203
7.13 POPULATION AND HOUSING 7-206
7.13.1 Background 7-206
7.13.2 Methodology 7-206
7.13.3 Environmental Setting 7-206
7.13.4 Standards of Significance 7-207
7.13.5 Impacts and Mitigation Measures 7-207
7.13.6 Population and Housing Initial Study Responses 7-208
7.13.7 Responses to Initial Study Questions 7-209
7.14 PUBLIC SERVICES AND FACILITIES 7-210
7.14.1 Background 7-210
7.14.2 Methodology 7-215

7.14.3 Environmental Setting 7-215
7.14.4 Standards of Significance 7-223
7.14.5 Impacts and Mitigation Measures 7-223
7.14.6 Public Services and Facilities Initial Study Responses 7-224
7.14.7 Response to Questions 7-225
7.15 RECREATION 7-227
7.15.1 Background 7-227
7.15.2 Methodology 7-227
7.15.3 Environmental Setting 7-227
7.15.4 Standards of Significance 7-228
7.15.5 Impacts and Mitigation Measures 7-228
7.15.6 Recreation Initial Study Responses 7-230
7.15.7 Responses to Initial Study Questions 7-230
7.16 TRANSPORTATION/TRAFFIC 7-231
7.16.1 Background 7-231
7.16.2 Methodology 7-235
7.16.3 Environmental Setting 7-243
7.16.4 Standards of Significance 7-255
7.16.5 Impacts and Mitigation Measures 7-256
7.16.6 Transportation/Traffic Initial Study Responses 7-265
7.16.7 Responses to Initial Study Questions 7-266
7.17 UTILITIES AND SERVICE SYSTEMS 7-271
7.17.1 Background 7-271
7.17.2 Methodology 7-272
7.17.3 Environmental Setting 7-274
7.17.4 Standards of Significance 7-278
7.17.5 Impacts and Mitigation Measures 7-278
7.17.6 Utilities and Service System Responses 7-280
7.17.7 Responses to Initial Study Questions 7-281
7.18 MANDATORY FINDINGS OF SIGNIFICANCE 7-284
7.18.1 Responses to Initial Study Questions 7-284

8.0 FISH AND GAME DETERMINATION 8-1
FISH AND GAME DETERMINATION 8-1

9.0 REFERENCES 9-1

9.1 PRINTED REFERENCES AND WEBSITES..... 9-1

9.2 INTERVIEWS AND PHONE CONTACTS..... 9-9

10.0 AGENCIES AND PERSONS CONTACTED 10-1

11.0 REPORT PREPARERS..... 11-1

LIST OF FIGURES

Figure 1.0-1: Vicinity and Location Map 1-3
Figure 3.2-1: Targa Stockton Terminal General Site Plan with Aerial 3-2
Figure 3.4-1: Regional Location Map 3-11
Figure 3.4-2: Assessor's Map 3-12
Figure 3.4-3: Project Setting 3-15
Figure 3.5-1: Pipeline Route and Connection Map 3-16
Figure 3.5-2: Berth Layout Plan 3-17
Figure 3.5-3: Storage Tank Details 3-21
Figure 3.5-4: Typical Tank Containment System 3-23
Figure 3.5-5: Access Easements 3-28
Figure 3.5-6: Stormwater Classification 3-30
Figure 3.5-7: Preliminary Grading Plan 3-31
Figure 3.5-8: Contact Water to Oil Water Separator 3-32
Figure 3.6-1: Staging and Storage Area during Construction 3-39
Figure 4.1-1: Pacific Ethanol and Targa Stockton Terminal Projects Vicinity Maps 4-3
Figure 4.1-2: Comparison of Site Plans 4-4
Figure 7-1-1: Site Elevation Plan 7-7
Figure 7.3-1: The California Air Districts 7-17
Figure 7.3-2: 2010 Nitrogen Oxide Emissions in San Joaquin Valley Air Basin 7-27
Figure 7.4-1: California Natural Diversity Data Base Map 7-60
Figure 7.5-1: Area of Potential Effect/Cultural-Archaeological 7-81
Figure 7.6-1: Soils Map 7-96
Figure 7.6-2: Fault Map 7-97
Figure 7.10-1: General Plan Map 7-176
Figure 7.10-2: Zoning Map 7-177
Figure 7.10-3: Enterprise Zone Map 7-178
Figure 7.15-1: Neighborhood Parks & Recreation Areas Map 7-229
Figure 7.16-1: Traffic Study Intersections 7-237
Figure 7.16-2: Departure Traffic Distribution 7-241
Firgure 7.16-3: Arrival Traffic Distribution 7-242
Figure 7.16-4: Existing Traffic Volumes 7-245
Figure 7.16-5: Intersection Traffic Control Operation 7-246
Figure 7.16-6: Construction Traffic Generation 7-247
Figure 7.16-7: Operations Traffic Generation 7-248
Figure 7.16-8: Existing Traffic and Project Construction Traffic Volumes 7-258
Figure 7.16-9: Existing Traffic and Project Operational Traffic Volumes 7-261

LIST OF TABLES

Table 3.3-1: Applicable Compliance and Review Requirements 3-3
Table 3.5-1: Tank Farm Descriptions 3-19
Table 7.1-1: Aesthetics Initial Study Responses 7-9
Table 7.2-1: Agriculture and Forestry Initial Study Responses 7-14
Table 7.3-1: National Ambient Air Quality Standards 7-19
Table 7.3-2: California Ambient Air Quality Standards 7-21
Table 7.3-3: Ambient Air Monitoring Sites near the Proposed Targa project 7-23
Table 7.3-4: Major Source Emission Thresholds 7-24
Table 7.3-5: Emission Offset Threshold Levels 7-24
Table 7.3-6: SJVAPCD Control District Thresholds of Significance 7-25
Table 7.3.7: Comparison of Emissions for Port of Stockton Development Plan EIR, Pacific Ethanol Project, and Proposed Targa Stockton Terminal Project 7-34
Table 7.3-8: Port of Stockton Development EIR Assumptions 7-34
Table 7.3.9: Port of Stockton EIR and Proposed Targa project Activity Comparison . 7-34
Table 7.3.10: Operational Emissions of Port of Stockton Development Plan from EIR 7-35
Table 7.3-11: General Construction Assumptions 7-38
Table 7.3-12: Phase-specific Construction Assumptions 7-38
Table 7.3-13: Construction Emissions Estimates 7-39
Table 7.3-14: Locomotive Assumptions 7-40
Table 7.3-15: Locomotive Emissions Estimates for Incoming/Outgoing Trains 7-41
Table 7.3-16: Storage Tank Assumptions 7-41
Table 7.3-17: Storage Tank Emissions Estimates 7-42
Table 7.3-18: Trucking Assumptions 7-43
Table 7.3-19: Trucking Emissions Estimates 7-43
Table 7.3-20: Ocean Going Vessel Assumptions 7-44
Table 7.3-21: Ocean Going Vessel Emissions Estimates 7-44
Table 7.3-22: Vehicle Traffic Assumptions 7-45
Table 7.3-23: Employee Vehicle Traffic Emissions Estimates 7-45
Table 7.3-24: Operational Emissions without Suggested Mitigation (Tons/Year) 7-46
Table 7.3-25: Overall Operational Emissions 7-46
Table 7.3-26: Air Quality Initial Study Responses 7-49
Table 7.4-1: Special-status Species Potentially Occurring on the Proposed Lease Area 7-61
Table 7.4-2: Biological Resources Initial Study Responses 7-76
Table 7.5-1: Cultural Resources Initial Study Responses 7-90
Table 7.6-1: Geology, Soils, and Seismicity Initial Study Responses 7-101
Table 7.7-1 Green House Gas Initial Study Responses 7-109
Table 7.8-1: 2011 Environmental Database Report Findings 7-125
Table 7.8-2: Hazardous Waste Initial Study Responses 7-138
Table 7.9-1: Hydrology and Water Quality Initial Study Responses 7-166
Table 7.10-1: Applicable Land Use Policies 7-173

Table 7.10-2: Land Use and Planning Initial Study Responses 7-180
Table 7.11-1: Mineral Resources Initial Study Responses 7-184
Table 7.12-1: Definitions of Acoustical Terms 7-192
Table 7.12-2: Typical Sound Levels Measured in the Environment 7-194
Table 7.12-3. Maximum Allowable Ambient Noise Exposure by Land Use 7-197
Table 7.12-4 Estimated Noise Levels 7-200
Table 7.12-5: Noise Initial Study Responses 7-202
Table 7.13-1: Population and Housing Initial Study Responses 7-208
Table 7.14-1: Public Services and Facilities Initial Study Responses 7-224
Table 7.15-1: Recreation Initial Study Responses 7-230
Table 7.16-1: Laws, Ordinances, Regulations, and Standards (LORS) 7-232
Table 7.16-2: Intersection Level of Service (LOS) Definitions 7-239
Table 7.16-3: San Francisco Bay Regional Port Safety Statistics (2010) 7-252
Table 7.16-4: Reported Marine Casualties Annually by Type 7-253
Table 7.16-5: Total Reported Marine Casualties per Month by Vessel (2010) 7-253
Table 7.16-6: Total Reported Marine Casualties Annually by Vessel 7-253
Table 7.16-7: Total Letters of Deviation Due to Navigational Deficiency Issued by Month (2010) 7-255
Table 7.16-8: Proposed Targa project Construction Level of Service Summary 7-259
Table 7.16-9: Levels of Service during Project Operations 7-262
Table 7.16-10: Transportation/Traffic Initial Study Responses 7-265
Table 7.16-11: Truck Deliveries by Type and Percentage 7-267
Table 7.17-1: Drainage Summary (Existing Conditions) 7-274
Table 7.17-2: Proposed Targa project Electrical Load Summary 7-277
Table 7.17-3: Utilities and Services Initial Study Responses 7-280

LIST OF ATTACHMENTS

Appendix A – Proposed Mitigated Negative Declaration
Appendix B – Mitigation Monitoring and Reporting Plan
Appendix C – Prototype Terminal Facility Development & Site Design Report
Appendix D – Lease Legal Description and Alta Survey
Appendix E - Cultural Resources Documentation
Appendix F – Air Quality URBEMIS Technical Information
Appendix G – Traffic Impact Modeling Technical Data
Appendix H – Phase I Environmental Assessment
Appendix I – Geotechnical Report
Appendix J –Engineering Feasibility Report

LIST OF ACRONYMS

AB— Assembly Bill
AB 32—California's Global Warming Solutions Act, Assembly Bill 32
ADT— Average Daily Traffic
AIChE— American Institute of Chemical Engineers
ANSI—American National Standards Institute
APCD—Air Pollution Control District
API—American Petroleum Institute
API Standards— American Petroleum Institute Standards for Petroleum Storage Tanks
ASME—American Society of Mechanical Engineering
AST—Aboveground Storage Tank
BACT—Best Available Emission Control Technology
BBLS—Barrels
BMP— Best Management Practices
BPD—Barrels Per Day
BPS— Best Performance Standards
BPH—Barrels Per Hour
CAA—Clean Air Act
CAAQS— California Ambient Air Quality Standards
Cal/EPA— California Environmental Protection Agency
Cal/OSHA—California Occupational Safety and Health Agency
CalRecycle— Department of Resources Recycling and Recovery
Caltrans— California Department of Transportation
Cal Water— California Water Service Company
CARB— California Air Resources Board
CBC—California Building Code
CCAA— California Clean Air Act
CCAP— Climate Change Action Plan
CCR—California Code of Regulations
CDFFP—California Department of Forestry and Fire Protection
CDFG—California Department of Fish and Game
CEC—California Energy Commission
CERCLA— Comprehensive Environmental Response Compensation and Liability Act
CERCLIS-NFPRA— U.S. EPA Comprehensive Environmental Response, Compensation, and Liability Information System - No Further Remediation Action Planned List
CEQA-- California Environmental Quality Act
CESA— California Endangered Species Act
CFG— California Fish and Game Code
CFP—California Fully Protected (species)
CFR—Code of Federal Regulations
CH— Critical habitat
CHMIRS— Chemical Hazardous Materials Incident Report System
CHSC— California Health and Safety Code
City—City of Stockton

CIWMB— California Integrated Waste Management Board
CNDDB— California Natural Diversity Data Base
CNEL— Community Noise Equivalent Level
CNPS— California Native Plant Society
CO—Carbon Monoxide
Corps— United States Army Corps of Engineers
CORRACTS list—Resources Conservation and Recovery Act Corrective Action List
County—San Joaquin County
CSC— California species of concern
CSFM— California State Fire Marshal
CSLC— California State Lands Commission
CSUS— California State University System
CTR— California Toxics Regulations
CUPA— Certified Unified Program Agency
dB—Decibel
dBA—A-Weighted Decibel
DCMA—Double-Counter-Weighted Marine Arms
Delta— Sacramento -San Joaquin River Delta
DHS— Department of Homeland Security
DO— Dissolved Oxygen
DOD—Department of Defense
DOI— Department of the Interior
DOT— United States Department of Transportation
DSP—Development Standards Plan
DTSC— Department of Toxic Substances Control
EMD—Emergency Medical Dispatch
EDR— Environmental Database Report
EEZ— Exclusive Economic Zone
EIR—Environmental Impact Report
EPA—United States Environmental Protection Agency
ERNS— United States Environmental Protection Agency Emergency Response Notification System
FAR— Floor Area Ratio
FE— Federally endangered
Fed/ OSHA— Occupational Safety Health Administration
FEMA— Federal Emergency Management Agency
FESA— Federal Endangered Species Act
FIRM— Flood Insurance Rate Map
FMMP— Farmland Mapping and Monitoring Program
FRA— Federal Railroad Administration
FSA— Facility Security Assessment
FSO— Facility Security Officer
FSP— Facility Security Plan
FT— Federally threatened
FAT—Federal Transit Administration

GAMAQI— Guide for Assessing and Mitigating Air Quality Impacts
GHG—Greenhouse Gas Emissions
GIP— General Industrial Permit
GPM—Gallons Per Minute
Great Valley— Great Valley geomorphic province
HAP—Hazardous Air Pollutant
HCFC—Hydrofluorocarbons
HMRIS—Hazardous Materials Incident Report System
HSWA— Hazardous and Solid Waste Act
HWCL— Hazardous Waste Control Law
Hz— Hertz
IEPR—Integrated Energy Policy Report
IFR—Internal Floating Roofs
IMO— International Maritime Organization
ISGOTT— International Safety Guide for Oil Tankers and Terminals
ISPS— International Ship and Port Facility Security
ISR— Indirect Source Review
ITOPF— International Tanker Owners Pollution Federation Ltd
KGal—One Thousand Gallons
KOP— Key Observation Point
KV— Kilo Volt
L_{dn}—Day/Night Equivalent (sound measurement)
L_{eq}— Equivalent Continuous Sound Pressure Level
LOS—Level of Service
LOX—Liquid Oxygen
LUST—Leaky Underground Storage Tank
MARSEC— Maritime Security
MBTA—Migratory Bird Treaty Act
MCE—Maximum Credible Earthquake
MEI—Maximum Exposure Individual
MGD— Million Gallons per Day
MOTEMS—Maritime Oil Terminal Engineering and Maintenance Standards
MOU— Memorandum of Understanding
MPA— Marine Preservation Association
MRSC— Marine Spill Response Corporation
MRZ— Mineral Resource Zones
MS4— Municipal Separate Storm Sewer System
MSDS—Material Safety Data Sheet
MSL—Mean Sea Level
MTSA— Maritime Transportation Security Act
MUD— Stockton Municipal Utilities District
NAAQS—National Ambient Air Quality Standards
NAHC— Native American Heritage Commission
NDPA—North Dakota Pipeline Authority
NHPA—National Historic Preservation Act

NIH— National Institute of Health
NOI— Notice of Intent
NOx—Nitrogen Oxides
NFPA—National Fire Protection Association
NMFS— National Marine Fisheries Service
NO_2—Nitrogen Dioxide
NOAA— National Oceanic and Atmospheric Administration
NPDES— National Pollutant Discharge Elimination System
NPS— Non-Point Source
NRC— National Response Center
Na. RC— National Research Council
O_3—Trioxygen
OCIMF— Oil Companies International Marine Forum
OES— Office of Emergency Services
OGV— Ocean Going Vessels
OPA 90—Oil Pollution Act of 1990
OSC—On-Scene Coordinator
OSCP— Oil Spill Contingency Plan
OSPR— Office of Oil Spill Prevention and Response
OSRO—Oil Spill Removal Organizations
OSRP— Oil Spill Response Plan
Pb—Lead
PFS—Public Facilities and Services
PG&E— Pacific Gas and Electric
PLC—Programmable Logic Controller
$PM_{2.5}$—Fine Particulate Matter
PM_{10}—Respirable Particulate Matter
PSI—Pours Per Square Inch
PT— Port Zoning Classifications
PRC—California Public Resources Code
RCRA— Resource Conservation and Recovery Act
RCRA-LQG— Resource Conservation and Recovery Act Large Quantity Generator
RCRA-SQG— Resource Conservation and Recovery Act Small Quantity Generator
REC— Recognized Environmental Condition
RMP— Risk Management Plan
RTTM— Real Time Transient Model
RRCE— Reduction, Recycling, and Reuse Element
RVP—Reid Vapor Pressure
RWCF— Stockton Regional Wastewater Control Facility
ROG—Reactive Organic Gasses
ROW—Right of Way
RSPA— Research and Special Programs Administration
RWQCB— Regional Water Quality Control Board
SB—Senate Bill
SCADA—Supervisory Control and Data Acquisition

SCP—Source Control Program
SDS— Port of Stockton's Stormwater Development Standards
SE— State Endangered
SFD— Stockton Fire Department
SIP—State Implementation Plans
SJCEHD—San Joaquin County Environmental Health Department
SJCOG— San Joaquin Council of Government
SJDWSC— San Joaquin River Deep Water Shipping Channel
SJMSCP— San Joaquin County Multi-species Habitat Conservation Plan
SJVAPCD— San Joaquin Air Pollution Control District
SO_x– Sulfur Dioxide
SPCC— Spill Prevention, Control, and Countermeasures Plans
SR— State Rare
SRRE— Source Reduction and Recycling Element
SRWCF— Stockton Regional Wastewater Control Facility
ST—State Threatened
STAR— Spill Team Area Responders
SSO— Ship Security Officer
SWPPP—Storm Water Pollution Prevention Plan
SWRCB—State Water Resources Control Board
TAC— Toxic Air Containment
TFV—Threshold Friction Velocity
TMDL— Total Maximum Daily Load
TRC— TRC Solutions Inc.
TRIS—Toxic Chemical Release Inventory System
TSA— Transportation Security Administration
TSD—Treatment, Storage, and Disposal Facilities
TSP—Terminal Security Plan
TWIC— Transportation Worker Identification Credential
UBC—Uniform Building Code
UFC— Uniform Fire Code
URBEMIS—Urban Emissions
USC—United States Code
USCG—United States Coast Guard
USGS—United States Geological Survey
USFWS—United States Fish and Wildlife Service
Valley—San Joaquin Valley
VDE—Visible Dust Emissions
VOC—Volatile Organic Compounds
VRU— Vapor Recovery Unit
VTS— Vessel Traffic Service
WDR—Waste Discharge Report
WQCP— Water Quality Control Plan

1.0 INTRODUCTION

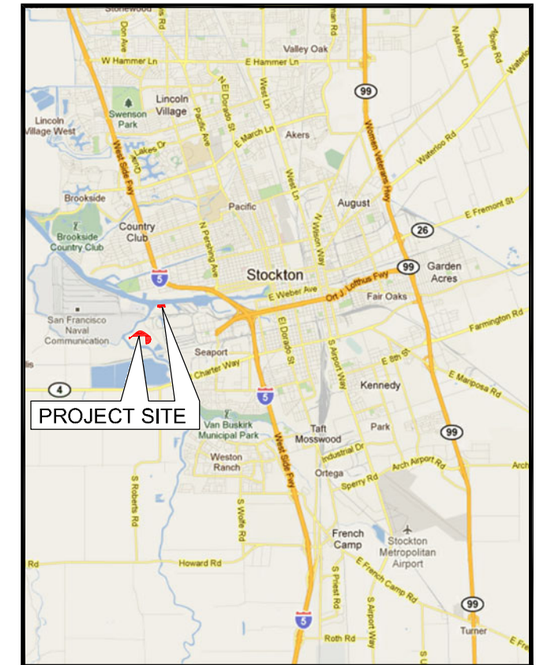
This Tiered Initial Study and proposed Mitigated Negative Declaration have been prepared under the direction of the Stockton Port District (Port), the Lead Agency under the California Environmental Quality Act (CEQA), for the Targa Terminals, LLC (Targa) Targa Stockton Terminal Project. Targa is proposing to develop a tank farm/terminal facility on approximately 19 +/- acres within the rail circle that encompasses the Pacific Ethanol production facility, located at 3028 Navy Drive, Stockton, California. In addition to the proposed tank farm/terminal area Targa proposes utilizing Berth #9 at the Port and an existing public Right of Way (ROW) for a product pipeline (for transferring fuels from Berth #9 to the tank farm/terminal facility). The pipeline alignment is located within the public ROW of Port Road 5 and extends from Berth #9. The route then proceeds southeast to Port Road 13, and then proceeds south to West Washington Street. Finally, the pipeline extends west to Navy Drive, finally reaching the proposed Targa tank farm/terminal facility. (*See Figure* 3.5-1: Pipeline Route & Connection Map).

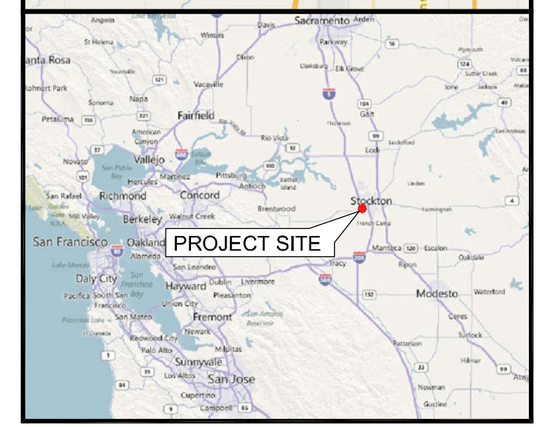
The proposed tank farm/terminal facility is located immediately north and east of the existing Pacific Ethanol production facility, on property owned by the Port (*See Figure* 1.0-1: Vicinity and Location Map). Targa is proposing to construct 20 petroleum product storage tanks of capacities ranging from 10,000 to 80,000 barrels (bbls), with a total storage capacity for the facility of 850,000 bbls. Various products would be shipped to the Targa Stockton Terminal by tanker, barge, product pipeline, truck, and rail. Targa would then deliver the product to customer facilities for further refining or distribution and final use. The mode of product delivery to customers would depend on quantity of product to be transported and final destination and would be delivered by: product pipeline, tanker/barge marine transport, truck, or rail. Potential commodities to be handled at the proposed facility include: California Air Resources Board (CARB) gas, CARB ultra-low-sulfur diesel, jet propellant -5, ethanol, E-100, E-85, low-ethanol blends from E-5 to E-25, crude oil, and biodiesel blends from B-5 to B-99.9 B 9000 soy biodiesel. The proposed Targa project could be expanded to handle asphalts PG 64-22, PG-58-22, anti-strip injection, petroleum coke, propane, and butane.

The proposed facility would connect to an existing pipeline operated by Kinder Morgan Energy Partners LP, which originates in the San Francisco Bay Area and transports most of the petroleum product requirements for the northern Central Valley of California. In addition, the proposed facility would have rail, truck, and ship inbound/outbound delivery modes. The rail delivery modes would include rail facilities, unit train capability, daily switching, and 12 railcar spots, and services would be provided by both Union Pacific and Burlington Northern Santa Fe Railroads. A pipeline would transport liquids from barges and ships/tankers in the Port's deepwater dock facilities at Berth #9 to the terminal storage area.

In 2006, Pacific Ethanol proposed to construct the Pacific Ethanol Production and Transshipment Facility (Pacific Ethanol Project) on 99 acres in the Stockton Port District. In January 2007, the Stockton Port District issued a Notice of Determination approving the Final Environmental Impact Report for the project. Pacific Ethanol finished construction of the ethanol production facility in 2008 but did not construct the other parts of the approved project—the transshipment

and storage facility. The Targa Stockton Terminal project would implement that portion of the Pacific Ethanol Project described as the transshipment facility for receipt, storage, loading, and transport of ethanol as proposed in the development plans for the Pacific Ethanol Project.





LEGEND:

PROJECT SITE-TARGA TERMINAL

PROJECT SITE-TARGA MARINE TERMINAL

REV.	DESCRIPTION	BY	APP.	CHKD

REGIONAL LOCATION MAP

DATE:	SCALE:
BY:	FIGURE: 1.0-1

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

This Tiered Initial Study and proposed Mitigated Negative Declaration have been prepared to identify and assess the anticipated environmental impacts of constructing and operating the proposed Targa project. In accordance with Section 15152 of the CEQA Guidelines, this Initial Study is tiered from the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR) (State Clearinghouse No. 2006062102).

A Tiered Initial Study and proposed Mitigated Negative Declaration, is a document which tiers (incorporates by reference general discussions from a broader EIR—CEQA Guidelines §15152(a)) previously adopted CEQA document. The CEQA Guidelines encourage tiering for "separate but related projects, including…development projects." (CAL. CODE REGS. Tit 14 §15152(b),(h) (2011)). The proposed Targa project entails the use of a small portion of a previously reviewed project by the Port as the CEQA Lead Agency; as such, CEQA which tiers from the 2006 Pacific Ethanol EIR is the *only proper* form of CEQA documentation. In language of the California Code, the proposed Targa project is a "separate but related project." The footprint of the previously reviewed project, the 2006 Pacific Ethanol EIR, included: 99 acres, the construction of an ethanol production and storage facility, and the usage of the rail spur encompassing the Pacific Ethanol property. The proposed Targa project intends to use 19+/- acres of the Pacific Ethanol project site, existing public ROW for its pipelines, and the existing Berth #9. Not only does the proposed facility have the same purpose (commercial fuel terminalling) as the previously reviewed project, but the foot-print of the proposed project is significantly reduced, and several of the key Targa facilities already exist (Berth #9, Unit Train Rail). These similarities leave tiering as the lone proper mechanism for environmental review, under CEQA, to be completed for the proposed Targa project under the CEQA Guidelines.

As a tiered document, the Tiered Initial Study for the proposed Targa project relies on the 2006 Pacific Ethanol EIR for: (1) a discussion of general background and setting information for environmental topic areas, (2) overall growth-related issues, (3) issues that were evaluated in sufficient detail in the 2006 Pacific Ethanol EIR for which there is no significant new information or changes in circumstances that would require further analysis, and (4) cumulative impacts. This Tiered Initial Study analyzes the potential impacts of the proposed Targa project and the adequacy of the existing environmental analysis in the 2006 Pacific Ethanol EIR with regard to the following environmental topic areas: (1) Aesthetics, (2) Agricultural Resources, (3) Air Quality/Greenhouse Gas, (4) Biological Resources, (5) Cultural Resources, (6) Geology, Soils and Seismicity, (7) Hazards and Hazardous Materials, (8) Hydrology and Water Quality, (9) Land Use and Planning, (10) Mineral Resources, (11) Noise, (12) Population and Housing, (13) Public Services, (14) Recreation, (15) Transportation and Traffic, (16) Utilities and Service Systems, and (17) Cumulative and Growth-inducing Effects.

The Stockton Port District has reviewed the proposed Targa project and, based on the analysis contained in the Tiered Initial Study, has determined that for all resource areas, the project would not result in any significant impacts that would not be mitigated to less-than-significant levels by previously adopted 2006 Pacific Ethanol EIR mitigation measures, or mitigation measures as identified in this Tiered Initial Study. An Environmental Impact Report is not required pursuant

to the Environmental Quality Act of 1970 (Sections 21000, et seq., Public Resources Code of the State of California).

All mitigation measures in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project, as identified in the project's Tiered Initial Study, as well as all project components described in the Tiered Initial Study, are included in the Approval and incorporated into the project. The proposed Targa project is consistent with the previous approved transshipment and storage facilities in the Pacific Ethanol Project. The development and operation of the proposed terminalling and storage facilities is a permitted use within the zoning classification of the lease area, Port (PT), and the lease area is designated as an Industrial land use by the City of Stockton 2035 General Plan. The 2006 Pacific Ethanol EIR identified potentially significant environmental impacts resulting from implementation of the Pacific Ethanol Project, and included mitigation measures to reduce the impacts of such developments and improvements to the extent feasible. Despite the adoption of all feasible mitigation measures by the Board of Commissioners, some Pacific Ethanol Project impacts remained significant. These significant and unavoidable impacts were fully addressed in the Findings and Overriding Considerations adopted by the Board of Commissioners of the Stockton Port District in connection with its approval of the Pacific Ethanol Project and certification of the 2006 Pacific Ethanol EIR. The circumstances have not changed, there is no new information, and no new mitigation measures have been identified since the preparation of the 2006 Pacific Ethanol EIR that would require reanalysis of cumulative impacts.

None of the conditions described in CEQA Public Resources Code Section 21166 or the CEQA Guidelines calling for the preparation of a subsequent EIR have occurred. The Tiered Initial Study does not identify any issues or include any information concerning new significant effects on the environment or a substantial increase in the severity of previously identified significant effects analyzed in the 2006 Pacific Ethanol EIR. In reviewing the site-specific information provided for the above-referenced project, the Stockton Port District found no substantial evidence that the project or any of its aspects might cause a new significant effect on the environment than that which was identified in the 2006 Pacific Ethanol EIR, and consequentially a Mitigated Negative Declaration is the proposed environmental document for this project.

The Stockton Port District is soliciting views of interested persons and agencies on the content of the environmental information presented in this document. Due to time limits mandated by State law, your responses must be sent at the earliest possible date, but no later than the 30-day review period ending on March 28, 2012.

Written responses should be sent to:

Mr. Jason Cashman, Environmental Specialist
Stockton Port District
2201 West Washington Street
P.O. Box 2089
Stockton, CA 95201
Phone: (209) 946-0246
Fax: (209) 464-1251
jcashman@stocktonport.com

2.0 ENVIRONMENTAL REVIEW AND APPROVAL

This environmental analysis is a Tiered Initial Study for the proposed Targa project. The environmental analysis for the proposed Targa project is tiered from the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR) (State Clearinghouse No. 2006062102) in accordance with Section 15152 of the California Environmental Quality Act (CEQA) Guidelines and Public Resource Code Section 21094. The 2006 Pacific Ethanol EIR analyzed and disclosed the potential environmental effects associated with the construction and operation of an ethanol production, transshipment and storage facility on 99 acres in the Stockton Port District. In January 2007, the Stockton Port District issued a Notice of Determination approving the Final Environmental Impact Report for the Pacific Ethanol Project. Pacific Ethanol completed construction of the ethanol production facility in 2008, but did not construct the other part of the approved project—the transshipment and storage facilities. The Targa Stockton Terminal Project would implement that portion of the Pacific Ethanol Project described as the transshipment facility for receipt, storage, loading, and transport of ethanol as proposed in the development plans for the Pacific Ethanol Project.

The CEQA Guidelines Section 15152 (b) encourages agencies to tier the environmental analysis prepared for separate but related projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or Negative Declaration on the actual issues ripe for decision at each level of environmental review. This environmental document incorporates by reference the discussions in the 2006 Pacific Ethanol EIR and concentrates on project-specific issues relevant to the proposed Targa project. The CEQA Guidelines encourage the use of tiered environmental documents to reduce delays and excessive paperwork in the environmental review process. This is accomplished in tiered documents by eliminating repetitive analyses of issues that were adequately addressed in the EIRs and Negative Declarations and by incorporating those analyses by reference.

Section 15152(h) (7) of the State CEQA Guidelines establishes the various types of EIRs that may be used in tiering situations which include "(7) Projects consistent with community plan, general plan, or zoning (15183)." CEQA mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. This streamlines the review of such projects and reduces the need to prepare repetitive environmental studies. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance (CEQA Guidelines Section 15152[d]). Accordingly, the tiering of the environmental analysis for the proposed Targa project allows this Tiered Initial Study to rely on the 2006 Pacific Ethanol EIR for the following:

- a discussion of general background and setting information for environmental topic areas;
- overall growth-related issues;

- issues that were evaluated in sufficient detail in the 2006 Pacific Ethanol EIR for which there is no significant new information or change in circumstances that would require further analysis; and

- cumulative impacts assessment.

The purpose of this Tiered Initial Study is to evaluate the potential environmental impacts of the Targa Stockton Terminal Project with respect to the 2006 Pacific Ethanol EIR to determine what level of additional environmental review, if any, is appropriate. Based on the analysis contained in this Tiered Initial Study, one of the following determinations will be made:

- The project is exempt from CEQA.

- The project incrementally contributes to, but does not exceed, environmental impacts previously identified in the 2006 Pacific Ethanol EIR, no additional mitigation measures are required, and preparation of Findings consistent with this determination is appropriate.

- The project would result in new impacts that were not previously identified in the 2006 Pacific Ethanol EIR, but there is no substantial evidence that such new impacts may have a significant effect on the environment and preparation of a Negative Declaration is appropriate.

- The project would result in new potentially significant impacts that were not previously identified in the 2006 Pacific Ethanol EIR, but proposed Targa project-specific mitigation measures would reduce such impacts to a point where clearly no significant effects would occur, there is no substantial evidence that the project as mitigated may have a significant effect on the environment, and preparation of a Mitigated Negative Declaration is appropriate.

- The project would result in new significant environmental impacts not previously identified in the 2006 Pacific Ethanol EIR, and preparation of a tiered EIR is appropriate.

Mitigation measures identified in the 2006 Pacific Ethanol EIR and adopted by the Board of Commissioners of the Stockton Port District that apply to the proposed Targa project will be required to be implemented as part of the project. A project-specific mitigation measure for a new potentially significant impact that was not previously identified in the 2006 Pacific Ethanol EIR will also be required as part of the proposed Targa project.

2.1 SCOPE OF TIERED INITIAL STUDY

Based on the analysis presented in this Tiered Initial Study, it has been determined that the proposed Targa project would not result in any potentially significant impacts that cannot be mitigated to a less-than-significant level or are not sufficiently addressed by the 2006 Pacific Ethanol EIR. The analysis contained in this Tiered Initial Study concludes that the proposed

Targa project would result in the following categories of impacts, depending on the environmental issue involved: no impact, less-than-significant impact, less-than-significant impact with the incorporation of 2006 Pacific Ethanol EIR mitigation measures, less-than-significant impact with incorporation Targa project specific mitigation measures; or contribute to a significant unavoidable impact that was adequately analyzed in the 2006 Pacific Ethanol EIR for which no new mitigation measures are available and no new analysis is proposed. The preparation of a Mitigated Negative Declaration is appropriate.

Since none of the conditions described in CEQA or the CEQA Guidelines calling for preparation of a subsequent EIR have occurred, this Tiered Initial Study includes only minor technical changes or additions to the analysis set forth in the 2006 Pacific Ethanol EIR. The analysis presented in this document does not raise important new issues about the significant effects on the environment analyzed in the 2006 Pacific Ethanol EIR.

2.2 PUBLIC AGENCY AND REVIEW

This Draft Tiered Initial Study and proposed Mitigated Negative Declaration will be circulated for public and agency review from February 28, 2012 to March 28, 2012. Copies of the Draft Tiered Initial Study are available during normal operating hours at the Stockton Port District, 2201 West Washington Street, Stockton, CA. Copies of the 2006 Pacific Ethanol EIR are available at the aforementioned address. Comments on this Draft Tiered Initial Study must be received by 5 p.m. on March 28, 2012 and may be emailed to jcashman@stocktonport.com or mailed to:

Mr. Jason Cashman, Environmental Specialist
Stockton Port District
2201 West Washington Street
P.O. Box 2089
Stockton, CA 95201
Phone: (209) 946-0246
Fax: (209) 464-1251
jcashman@stocktonport.com

2.3 PROJECT INFORMATION

Project Title: Targa Terminals, LLC (Targa), Targa Stockton Terminal Project

Project Location: 3028 Navy Drive, Stockton, California

Lead Agency Name and Address: Stockton Port District, 2201 West Washington Street, Stockton, CA 95201

Project Sponsor's Name and Address:
Targa Terminals, LLC
Products, Crude Storage & Terminalling

1000 Louisiana Street
Suite 4300
Houston, Texas 77002

Contact Persons and Phone Numbers:

Mr. Vincent Di Cosimo, President
Targa Terminals, LLC
1000 Louisiana Street, Suite 4300
Houston, TX 77002-5036
(713) 584-1235
VDiCosimo@targaresources.com

Mr. Troy Goodman, President
Targa Terminals, LLC – Targa Sound Terminal
2628 Marine View Drive
Tacoma, WA 98422
(800) 426-9799
tgoodman@targaresources.com
www.targasoundterminal.com

Location of the Administrative Record for this Project: Stockton Port District, 2201 West Washington Street, Stockton, CA 95201

Identification of Previous EIR Relied Upon for Tiering Purposes and Address where Copies are Available for Inspection: This environmental analysis is tiered from the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR) (State Clearinghouse No. 2006062102). The proposed Targa project would implement that portion of the Pacific Ethanol Project described as the Ethanol Transshipment Facility in the aforementioned EIR with some modifications as identified in this Draft Tiered Initial Study. These documents are available for review during normal operating hours at the Stockton Port District, 2201 West Washington Street, Stockton, CA 9520.

2.4 ORGANIZATION OF THE TIERED INITIAL STUDY

This Tiered Initial Study is organized into the following sections.

Section 1.0 - Introduction: Provides summary background information about the proposed Targa project, including project location, lead agency, and contact information.

Section 2.0 - Environmental Review and Approval: Includes a summary of the Tiered Initial Study relationship to the 2006 Pacific Ethanol EIR, the scope of the Tiered Initial Study, public and agency review information, and an overview of the document's organization.

Section 3.0 - Project Description: Includes a description of the proposed Targa project.

Section 4.0 - Consistency with the 2006 Pacific Ethanol EIR: Describes the consistency of the proposed Targa project with the 2006 Pacific Ethanol EIR.

Section 5.0 - Environmental Factors Potentially Affected: Identifies which environmental areas, if any, the proposed Targa project would cause 'Potentially Significant Impacts' as indicated by the analysis provided in the CEQA Environmental Checklist.

Section 6.0 - Determination: Indicates whether impacts associated with the proposed Targa project are significant, and what, if any, additional environmental documentation is required.

Section 7.0 - Evaluation of Environmental Impacts: Contains the Environmental Checklist form for each resource area. The checklist is used to assist in evaluating the potential environmental impacts of the proposed Targa project with respect to the 2006 Pacific Ethanol EIR. The checklist identifies potential project effects as follows: (1) New potentially significant project impacts that were not adequately analyzed in the 2006 Pacific Ethanol EIR, or previously identified significant impacts for which new feasible mitigation measures are available; (2) New less-than-significant impacts with mitigation incorporated; (3) Environmental impacts of the project that were adequately analyzed and mitigated in the 2006 Pacific Ethanol EIR; (4) Less-than-significant impacts; and (5) Effects that would not result in any adverse environmental impact. This section also contains an explanation of all checklist answers and recommended mitigation measures.

Section 8.0 – Fish and Game Determination

Section 9.0 - References: Lists references used in the preparation of this report.

Section 10.0 - Agencies and Persons Consulted: Provides the names of individuals contacted in preparation of this document.

Section 11.0 - Report Preparers: Lists the names of individuals who assisted in the preparation of this report.

Appendix A – Proposed Mitigated Negative Declaration
Appendix B – Mitigation Monitoring and Reporting Plan
Appendix C – Prototype Terminal Facility Development & Site Design Report
Appendix D – Lease Legal Description and Alta Survey
Appendix E - Cultural Resources Documentation
Appendix F – Air Quality URBEMIS Technical Information
Appendix G – Traffic Impact Modeling Technical Data
Appendix H – Phase I Environmental Assessment
Appendix I – Geotechnical Report
Appendix J – Preliminary Engineering Report

3.0 PROJECT DESCRIPTION

3.1 PROJECT NAME

Targa Stockton Terminal Project

3.2 PROPOSED ACTION

It is the intention of Targa to enter into a lease with the Port for approximately 19.92 acres to construct and operate a terminalling and storage facility at an identified lease area adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. In addition, Targa desires to obtain a Letter of Agreement from the Port for use of Berth #9 allowing Targa to make the necessary improvements required to make Berth #9 suitable for Targa's intended uses. Targa proposes a period of 50 years, with the option to extend the lease incrementally for an additional period of 25 to 30 years, to coincide the life of the lease with the life of the facility. The proposed lease area would provide enough space for the initial facility, as well as for future expansion when required. Improvements at the Port would include storage tanks, secondary containment systems, piping, a control building, other buildings (pump, storage), truck loading and unloading rack and canopy, rail loading and off-loading rack, Berth #9 facility improvements, additive systems, a motor control center, fire protection, lighting, security, two pipeline supply connections, access and product off-site transport, stormwater runoff infrastructure improvements, oil-water separator, emergency shutdown system, and cathodic protection (*See Figure* 3.2-1: Targa Stockton Terminal General Site Plan with Aerial).

3.3 REQUIRED PERMITS AND APPROVALS

Many laws and policies have been adopted at the federal, State, and local levels to protect environmental resources and ensure that development is appropriately planned and managed. Table 3.3-1 summarizes the principal laws, regulations, and policies with which the proposed Targa project must comply.

STORAGE TANKS

TANK NO.	PRODUCT	CAPACITY (BBLS)	TANK DIA. (FT)	TANK HT. (FT)
T-1	BIO FUEL	20,000	56	48
T-2	"SWING"	50,000	86	48
T-3	ADDITIVES	10,000	40	48
T-4	ADDITIVES	10,000	40	48
T-5	TRANSMIX	10,000	40	48
T-6	ETHANOL	20,000	56	48
T-7	ETHANOL	20,000	56	48
T-8	ETHANOL	20,000	56	48
T-9	ETHANOL	20,000	56	48
T-10	CRUDE OIL	50,000	86	48
T-11	CRUDE OIL	50,000	86	48
T-12	CRUDE OIL	50,000	86	48
T-13	CRUDE OIL	50,000	86	48
T-14	CRUDE OIL	50,000	86	48
T-15	ETHANOL	80,000	110	48
T-16	LOW SULPHUR DIESEL	80,000	110	48
T-17	REGULAR GASOLINE	50,000	86	48
T-18	PREMIUM GASOLINE	50,000	86	48
T-19	BIO DIESEL	80,000	110	48
T-20	ULTRA-LOW SULPHUR DIESEL	80,000	110	48
TOTAL =		850,000		

REV.	DESCRIPTION	BY	APP.	CHKD

GENERAL SITE PLAN WITH AERIAL

DATE:

SCALE:

BY:

FIGURE: **3.2-1**

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

Table 3.3-1: Applicable Compliance and Review Requirements

Resource Area	Compliance Requirements
Aesthetics	• Stockton 2035 General Plan • Stockton Municipal Code Chapter 16, Article III, Division 16-305, Section 305.060 • Stockton Municipal Code Chapter 3, Part VIII Stockton Arts Commission
Agricultural Resources	• Stockton Municipal Code Chapter 16, Article III, Division 16-310, Sections 310.040 Agricultural Preservation • Stockton Municipal Code Chapter 16, Article VII, Division 16-770, Williamson Act Regulations
Air Quality/Green House Gas	• Federal Clean Air Act and Clean Air Act Amendments 1990 • California Clean Air Act • San Joaquin Valley Air Pollution Control District Plans • Stockton Municipal Code Chapter 16, Article III, Division 16-305, Sections 305.040; 305.080 • San Joaquin Valley Air Pollution Control District, Authorities to Construct and Authorities to Operate
Biology	• Federal and State Endangered Species Acts • Federal Migratory Bird Treaty Act • Federal Bald and Golden Eagle Protection Act • California Native Plant Protection Act • California Fish and Game Code • Stockton Municipal Code Chapter 5, Part IV, Division 4 Heritage Trees • San Joaquin Council of Governments, Habitat Conservation Plan Permits
Cultural Resources	• California Public Resources Code Sections 5024 and 5024.5 • State Historic Preservation Office Requirements • Stockton Municipal Code Chapter 16, Article III, Division 16-310, Sections 310.050 Cultural Resources • Stockton Municipal Code Chapter 16, Article VII, Division 16-730, Cultural Resources
Geology and Soils	• Stockton Municipal Code Chapter 13, Part V, Grading and Erosion Control • City of Stockton, Grading Permit • Port of Stockton, Stormwater Development Standards Plan

Resource Area	Compliance Requirements
Hazards and Hazardous Materials	• California Code of Regulations Title 22 • California Hazardous Materials Release Response Plans and Inventory Act • Stockton Municipal Code Chapter 16, Article III, Division 16-310, Sections 310.080 Hazardous Materials • Stockton Municipal Code Chapter 4, Part IV, Division 2 Lights on Obstructions in Public Streets • City of Stockton Office of Emergency Services, Hazardous Materials Business Plan and Hazardous Material Permit • San Joaquin County Environmental Health Department is the CUPA and regulates hazardous materials • California State Fire Marshal review of product pipeline design • U.S. Environmental Protection Agency letter of approval for Facility Response Plan
Hydrology and Water Quality	• Federal Clean Water Act • Porter-Cologne Water Quality Control Act • California Department of Health Services requirements for potable water facilities • Stockton Municipal Code Chapter 7, Part VIII, Division 6 Stormwater Management and Discharge Control • Stockton Municipal Code Chapter 13, Part V, Grading and Erosion Control • State Water Resources Control Board, Aboveground Storage Tank Program and General Industrial Activity Stormwater Permits • California Regional Water Quality Control Board, Construction Activities Stormwater General Permit • California Regional Water Quality Control Board, Industrial Activities Stormwater General Permit
Land Use and Planning	• Stockton 2035 General Plan • Stockton Municipal Code Chapter 16, Article II, Division 16-210, Zoning Districts Established, Zoning Map Adopted • Stockton Municipal Code Chapter 16, Article II, Division 16-230 Zoning District Development Standards • Stockton Municipal Code Chapter 16, Article III, Division 16-310, Sections 310.110, Setback Regulations and Exceptions • Stockton Municipal Code Chapter 16, Article VII, Division 16-750, Nonconforming Uses, Structures and Parcels • California Government Code • Stockton Port District Lease Approval • City of Stockton building permits and encroachment permits • Stockton Port District Berth Agreement for Targa's use of Berth #9

Resource Area	Compliance Requirements
Mineral Resources	• California Surface Mining and Reclamation Act of 1975
Noise	• Stockton 2035 General Plan • Stockton Municipal Code Chapter 16, Article III, Division 16-340, Noise Standards • Stockton Municipal Code Chapter 5, Part XVIII, Noise Regulations
Population and Housing	• Stockton 2035 General Plan • Stockton Housing Element • Regional Housing Allocation Plan
Public Services and Utilities	• Stockton 2035 General Plan • Environmental Enforcement and Training Act of 2002 • Stockton Municipal Code Chapter 4, Part I, Division 1, Uniform Fire Code • California Education Code Sections 52080-52086 • Stockton Municipal Code Chapter 12, Part IV, Cable Television Franchises Procedures, Specifications, and Terms • Stockton Municipal Code Chapter 12, Part I, Division 1, Electric-Pacific Gas & Electric Company, Grantee • Stockton Municipal Code Chapter 12, Part I, Division 3, Telephone-Pacific Telephone and Telegraph Company, Grantee • City of Stockton, Industrial Waste Discharge Permit
Recreation and Open Space	• Stockton 2035 General Plan
Transportation/Traffic	• Stockton 2035 General Plan • Stockton Municipal Code Chapter 16, Article III, Division 16-310, Section 310.030 Access, General • Stockton Municipal Code Chapter 16, Article III, Division 16-310, Section 310.140, Traffic Sight Area • Stockton Municipal Code Chapter 9, Part II, Division 5 Special Gas Tax Street Improvement Fund • Stockton Municipal Code Chapter 10, Part I, Traffic Regulations • Stockton Municipal Code Chapter 10, Part II, Routes For Commercial Vehicles and Vehicles Transporting Flammable Liquids

3.4 BACKGROUND AND CONTEXT

Targa is proposing the construction of a terminalling and storage facility on land owned by the Port. The lease area is adjacent to (north and east of) the existing Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed lease area consists of approximately 19.92 acres within the rail circle at the existing Pacific Ethanol site. (See Appendix D: Lease Legal Description and ALTA Survey) The proposed Targa project is planned to include 20 petroleum product tanks with a range of tank sizes from 10,000 to 80,000 bbls and a total storage capacity of 850,000 bbls.

The proposed Targa project would provide loading-rack service as a distribution point for a large variety of petroleum products. The loading-rack service would include rack automation, midgrade blending, ethanol blending, California Air Resources Board (CARB) detergent additive systems, diesel red-dye injection services, ethanol truck loading/off-loading, and the ability to blend to various specifications needs to meet current energy policy requirements.

The proposed terminal facility would connect to an existing pipeline operated by Kinder Morgan Energy Partners LP (Kinder Morgan), which originates in the San Francisco Bay Area and transports most of the petroleum product requirements for the northern Central Valley of California. A product pipeline will be constructed to connect the proposed terminal facility to the Port's deep water channel Berth #9. In addition, the proposed Targa project would utilize existing inbound/outbound delivery modes which include rail facilities, unit train capability, trucks, barges, and ships/tankers. Rail services would be provided by both Union Pacific and Burlington Northern Santa Fe.

The potential commodities to be handled at the proposed facility based on customers' needs include: CARB Gas, CARB ultra-low-sulfur diesel, jet propellant -5, ethanol E-100, E-85, low-ethanol blends from E-5 to E-25, crude oil, biodiesel blends from B-5 to B-99.9, and BQ9000 soy biodiesel. The proposed Targa project can be expanded to handle asphalts PG-64-22 and PG-58-22, anti-strip injection, petroleum coke, propane, and butane.

The Port would have primary jurisdiction over the proposed Targa project and will act as the CEQA lead agency. The federal regulatory agencies that may have jurisdiction over this project include the U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (Corps), and U.S. Fish and Wildlife Service (U.S.F.W.S). State and local regulatory agencies involved in the permitting process include the State Water Quality Control Board (SWQCB), California Department of Fish and Game (DFG), San Joaquin Valley Air Pollution Control District (SJVAPCD), City of Stockton (City), and the Port.

3.4.1 Project Need

3.4.1.1 Changing Energy Policy

In recent years, legislation at both the State and national levels has called for increased use of renewable/green energy sources in transportation fuels. To comply with regulations mandated by the Energy Independence and Security Act of 2007, the Renewable Fuel Standard program, and

California State Assembly Bill 32 Low Carbon Fuel Standard, a drastic increase in fuel terminalling and storage facilities would be necessary to facilitate new blending requirements. According to the EPA, the Renewable Fuel Standard program will increase the volume of renewable fuel required to be blended into transportation fuel from nine (9) billion gallons in 2008 to thirty-six (36) billion gallons in 2022. In addition to augmented storage capacity, the implementation of new fuel standards calls for increased transportation infrastructure to allow for the conveyance/handling of alternative fuel materials. A California Energy Commission (CEC) draft staff report titled *Transportation Energy Forecasts and Analyses for the 2009 Integrated Energy Policy Report* states:

> *California's logistical infrastructure for the importation and redistribution of ethanol will need to be modified to enable a greater quantity and flexibility of ethanol imports within the next 6 to 18 months. California's ethanol import and redistribution infrastructure will need to change rather quickly to accommodate the anticipated transition to 10 percent (E10) blending beginning January 1, 2009.*

3.4.1.2 Bakken Crude Oil Delivery to California & Pacific Rim Markets

Since 2005, the original discovery of the gigantic and prolific Bakken oil fields of Montana and North Dakota, oil producers have been looking for ways to increase the market and distribution of Bakken oil. It will be years before petroleum pipelines can be built that will distribute the Bakken oil supply to the world markets and California. Increased transportation capacity has reduced Bakken crude oil's discount to the West Texas Intermediate benchmark price, but exponential gains in oil production continue to outpace anticipated growth in pipeline take-away capacity, giving railroads, marine transportation, and terminalling facilities the opportunity to step up for Bakken oil operators looking for market flexibility. According to the North Dakota Pipeline Authority (NDPA), pipeline capacity is not expected to keep pace with production until early 2015 or 2016, leaving incremental volumes to find alternative transportation methods, primarily rail, which was capable of hauling 115,000 bbl/day (bbl/d) last year. Railroads are projected to accommodate 222,000 bbl/d by 2013, according to the NDPA.

With the proposed Targa project, Targa plans to provide Bakken oil producers with a 'pipeline on wheels' or a more flexible pipeline in the form of an 80-100 car unit train and barge/ship marine transportation to competitive destination markets that will allow the customer a better net back to the wellhead. Thus, for Bakken oil operators, crude not committed to pipelines can be shipped to new markets previously unavailable. The proposed Targa project will make the entire Pacific Rim market available to Bakken oil producers.

Because of production declines in Mexico and Venezuela, California refiners are receiving reduced shipments of heavy crudes. Higher volumes of heavy crudes from North Dakota, Montana, and Canada offer considerable potential to improve operating margins for California refiners. By developing the necessary infrastructure as proposed with the proposed Targa project, California refiners will have the ability to obtain alternative crude oil supplies by offering Bakken oil producers, located in North Dakota and Montana, a chance to send their crude to California refineries for the first time. By increasing transport efficiency and allowing Bakken

producers to tap into new refinery markets, the proposed Targa project will have the added benefit of improving wellhead values for oil production from the Bakken formation years in advance of completion of future petroleum pipeline projects.

3.4.2 Need for Additional Capacity

Californians require mobility to conduct their everyday lives and attend to their business needs (CEC, 2007b). Even with full implementation of the State Alternative Fuels Plan (CEC, 2007; CARB, 2007), petroleum-based fuels are and will continue to be a necessary part of California's energy portfolio. In its 2007 Integrated Energy Policy Report (IEPR), the CEC found that *"conventional petroleum fuels will be the main source of transportation energy for the foreseeable future… California must address its petroleum infrastructure problems and act prudently to secure transportation fuels to meet the needs of our growing population"* (CEC, 2007b). The CEC stated further that "*This should be viewed as a strategy to allow time for the market and consumer behavior to adjust to alternative fuels and transportation choices. During this transition, California must be innovative and aggressive in finding more ways to make increased efficiency, greater renewable fuel use, and smart land use planning the most desirable consumer options"* (CEC, 2007b). Thus, the proposed Targa project would help meet California's stated needs for transportation energy facilities by providing critical infrastructure called for in the CEC's Integrated Energy Policy Reports since 2007. In the 2007 IEPR, the CEC recommended that California continue improving critical petroleum product import infrastructure as well as related storage and onshore transportation facilities (CEC, 2007a; CEC, 2007b; CEC, 2007c). The proposed Targa project directly addresses part of this stated need.

3.4.3 Project Objectives

The overall project objectives are to meet State and federally mandated storage and terminalling facilities demand for renewable fuels, and develop the necessary terminalling infrastructure to allow the efficient transport or Bakken crude oil to western markets and California refineries. Specifically, the proposed Targa project objectives include:

- Accommodate the planning goals and policies of the City of Stockton and the Port by developing port related facilities within the Enterprise Zone and Redevelopment Area.

- Support Pacific Ethanol with needed terminal and storage facilities and implement the transshipment and storage facilities that were planned by Pacific Ethanol, and previously approved by the Port, but never built.

- Construct a facility that would allow Targa to take advantage of the availability of rail, highway, deep-water channel/dock facilities, and pipeline transportation systems at the Port, thereby minimizing the need to transport petroleum products and ethanol by truck.

- Construct a facility using Best Available Emission Control Technology (BACT) that would significantly reduce facility air emissions.

- Construct a facility that would allow for future growth as the area population increases.

- Develop a "state-of-the-art" storage facility, thereby reducing the environmental and safety risks associated with transporting and handling ethanol and petroleum products.

3.4.4 Development Process

Targa has completed the feasibility study and is now in the preliminary design and environmental review process to obtain the Stockton Port District lease for the terminal/tank farm site, and letter of agreement for usage of Berth #9. Targa and the Port are focused on addressing the environmental issues as effectively as possible. The proposed Targa project would incorporate a number of state-of-the-art design features to protect the environment. They include the following:

- The Targa facility would allow larger volumes (barges, tankers, unit trains, pipelines) to discharge their entire cargo at one time, thus eliminating the need for multiple trips by smaller tankers or trucks for the same amount of product. In addition, the pumping time for the equivalent amount of product would be significantly shortened. By eliminating small tankers, total emissions in the region would be reduced.

- The facility would operate under a permit issued by the San Joaquin Valley Air Pollution Control District (SJVAPCD) that includes an emissions cap.

- The use of high-capacity pumps and large-diameter pipelines would assure maximum off-loading rates, thus reducing the time a tanker/barge remains in port, which results in fewer tanker/barge emissions.

- Alternative Marine Power (Cold Ironing) facilities or equivalent technology would be constructed so that properly equipped tankers/barges can use the technology and minimize emissions while at the berth. Targa will use its best efforts to contract exclusively with ships that possess cold ironing capabilities to maximize expenditures and minimize potential environmental harm.

- Electric-powered shore-side pumps would be installed to move the product through the pipeline, thereby minimizing the use of the tanker/barge pumps and reducing fuel usage and emissions from the tankers/barges.

- The facility would utilize alternative hybrid locomotive technologies for moving of railcars within the port for loading and off-loading at the facility, which would eliminate diesel emissions, greenhouse gases, and dependency on non-renewable fossil fuels.

Initial throughput at the start of operations is expected to be approximately 55,000 bbls per day, but throughput is expected to increase in later years to meet regional demands and changes in fuel-characteristic requirements to meet environmental goals. Project throughput would be regulated by emission caps in the Permit to Operate issued by the SJVAPCD. Throughput in the

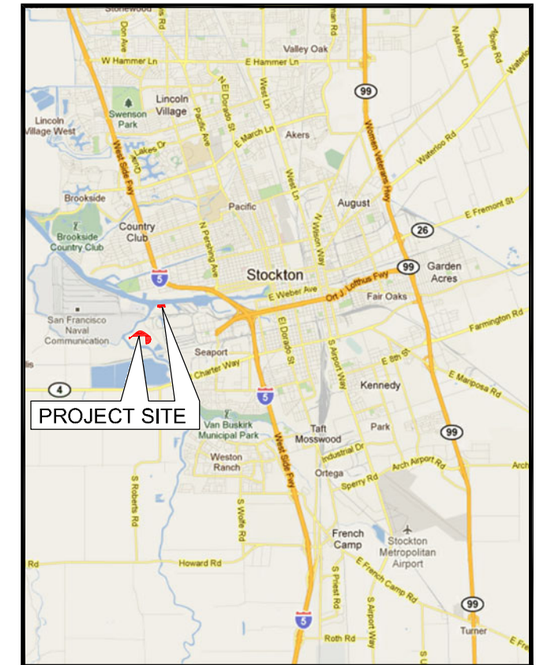
future would also be dependent on a number of factors, including future regulatory requirements, port tariffs, crude oil supplies, availability and price of transportation fuels, and regional demand for fuels.

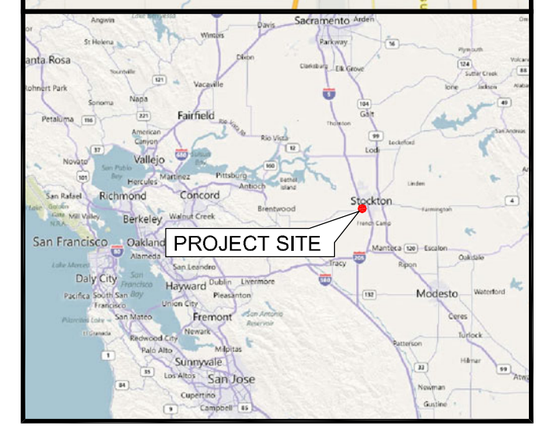
3.4.5 Distribution of Petroleum Products

Various products would be shipped into the Targa Stockton Terminal by tanker, barge, product pipeline, truck, and rail. Targa's customers would then instruct Targa to deliver product to the customer's facilities for further refining or distribution and final use. The customer's products would be delivered by product pipeline, tanker/barge, truck, or rail, depending on the quantity of product required for transport and final destination.

3.4.6 Regional Context

The proposed Targa project is located in the eastern area of the Port adjacent to the Pacific Ethanol Plant (*See Figure* 3.4-1: Regional Location Map and Figure 3.4-2: Assessor's Map). The Port consists of approximately 2,000 acres of land for industrial development. The Port is administered by the Stockton Port Commission under the legal authority of the California Harbors and Navigation Code, Chapter 2, Article 6240.3. The Stockton Port Commission is chartered to develop and operate the Port to benefit maritime uses, and it functions as a landlord by leasing Port properties to more than 100 tenants. The Port currently accommodates terminals for NuStar, Shell, Buckeye and Tesoro. The Port also contains alternative fuels companies such as Pacific Ethanol and Community Fuels. The Port is located 75 nautical miles from the Golden Gate Bridge and 1 mile from Interstate 5. Rail service is provided by Union Pacific and Burlington Northern Santa Fe. The Port is also serviced by an existing petroleum product pipeline operated by Kinder Morgan.





LEGEND:

PROJECT SITE-TARGA TERMINAL

PROJECT SITE-TARGA MARINE TERMINAL

REV.	DESCRIPTION	BY	APP.	CHKD

REGIONAL LOCATION MAP

DATE:	SCALE:
BY:	FIGURE: 3.4-1

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

REV.	DESCRIPTION	BY	APP.	CHKD

ASSESSOR'S MAP

DATE:	SCALE:
BY:	FIGURE: 3.4-2

TARGA

FACILITY: TARGA TERMINAL STOCKTON, CALIFORNIA

3.4.7 Project Setting

The proposed Targa project is located adjacent to the Pacific Ethanol production facility, which is encircled by a rail spur that services Pacific Ethanol corn unit trains. The proposed lease area is higher in elevation by approximately 5 to 10 feet compared to the surrounding area and was created by disposal of dredged material. To the north and west of the proposed lease area is the City of Stockton Police Training Facility and Pistol Range. Beyond the San Joaquin River to the northwest of the proposed lease area is Rough and Ready Island, also known as the Port's West Complex). To the southeast of the proposed lease area are the City of Stockton stormwater retention basin and sewage treatment plant. North of the proposed lease area are terminals for NuStar and Tesoro. See Figure 3.4-3: Project Setting shows the surrounding land uses.

3.5 DESCRIPTION OF PROJECT FACILITIES

The following describes the components of the proposed Targa project, which includes the following major components: Deep-water channel Berth #9 improvements, Storage Tanks, Control Building, Other Buildings, Truck Loading-rack Canopy, Railcar Off-loading Rack, Additive Systems, Motor Control Center, Fire Protection, Lighting, Security, Pipeline Supply Connections, Access and Product Off-site Transport, Stormwater Runoff, Oil-Water Separator, Emergency Shutdown System, and Cathodic Protection. An overview of the proposed Targa project elements is provided below along with the operational parameters.

3.5.1 Deep-water Channel Berth #9

3.5.1.1 Berth

The proposed Targa project would not require dredging of the deep-water channel, as the Port is equipped to accommodate up to Panamex-size vessels, fully loaded and sailing at high tide. The waterway has no width restriction, and would handle fully loaded 45,000- to 55,000-ton-class ships. Up to 80,000-ton-class vessels can travel the channel partially loaded in accordance to the Port design parameters and USCG regulations. The proposed Targa project would require that unloading systems be installed at Berth #9 within the existing shed and a connecting pipeline from Berth #9 to the terminalling and storage area.

Berth #9 improvements would be designed to load and unload petroleum products (Bakken crude oil) from marine vessels and transfer the product to the proposed Targa Stockton Terminal via a new 16-inch diameter, high-volume pipeline. (*See Figure 3.5-1:* Pipeline Route and Connection Map). The terminal would be operated so as to minimize the time each marine tanker or barge remains at Berth #9 and would do so with a combination of high capacity pumps, large diameter pipeline, and adequate storage capacity in the tank farm.

Targa proposes to modify the Port's existing Berth #9 to accommodate marine shipments of petroleum products (Bakken Crude Oil) to the proposed Targa Stockton Terminal (*See Figure* 3.5-2: Berth Layout Plan). Targa will make the necessary improvements at Berth #9 to accommodate safe marine transport of petroleum products which will include: mooring dolphins

with quick release hooks and power capstans; mooring and fendering system; offloading and loading arms; an electric motor driven derrick cargo crane; a davit crane (boat lowering crane); 4000 feet of spill boom storage; low impact area lighting systems; marine structure cathodic protection corrosion prevention systems; navigational lighting systems; cable trays, wiring, instrumentation and controls, and grounding systems.

The engineering and design for Berth #9 improvements would be based on the "Maritime Oil Terminal Engineering and Maintenance Standards," (MOTEMS) Chapter 31F, Title 24, Part 2 California Code of Regulations, promulgated by the California State Lands Commission (2004). Details of the improvements for Berth #9, and mooring/fendering system will be developed further during the detailed design phase of the proposed Targa project after Lease Approval and Letter of Agreement for usage of Berth #9 with the Port.

0 700' 1400'

SCALE: 1"=700'

LEGEND:

- 1 PROJECT SITE-TARGA TERMINAL
- 2 PROJECT SITE-TARGA MARINE TERMINAL
- 3 STOCKTON PD TRAINING RANGE
- 4 TESORO TERMINAL
- 5 NU STAR
- 6 SHELL
- 7 BUCKEYE
- 8 SEWAGE TREATMENT
- 9 LYONS GOLF COURSE
- 10 STORM WATER RETENTION BASIN
- 11 WASTEWATER DISPOSAL BASIN
- 12 ROUGH AND READY ISLAND HISTORIC NAVAL BASE
- 13 PACIFIC ETHANOL
- SHIP LOADING/UNLOADING PIPELINE

REV.	DESCRIPTION	BY	APP.	CHKD

PROJECT SETTING

DATE:

SCALE:

BY:

FIGURE: **3.4-3**

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

REV.	DESCRIPTION	BY	APP.	CHKD

PIPELINE ROUTE AND CONNECTION MAP

DATE:

SCALE:

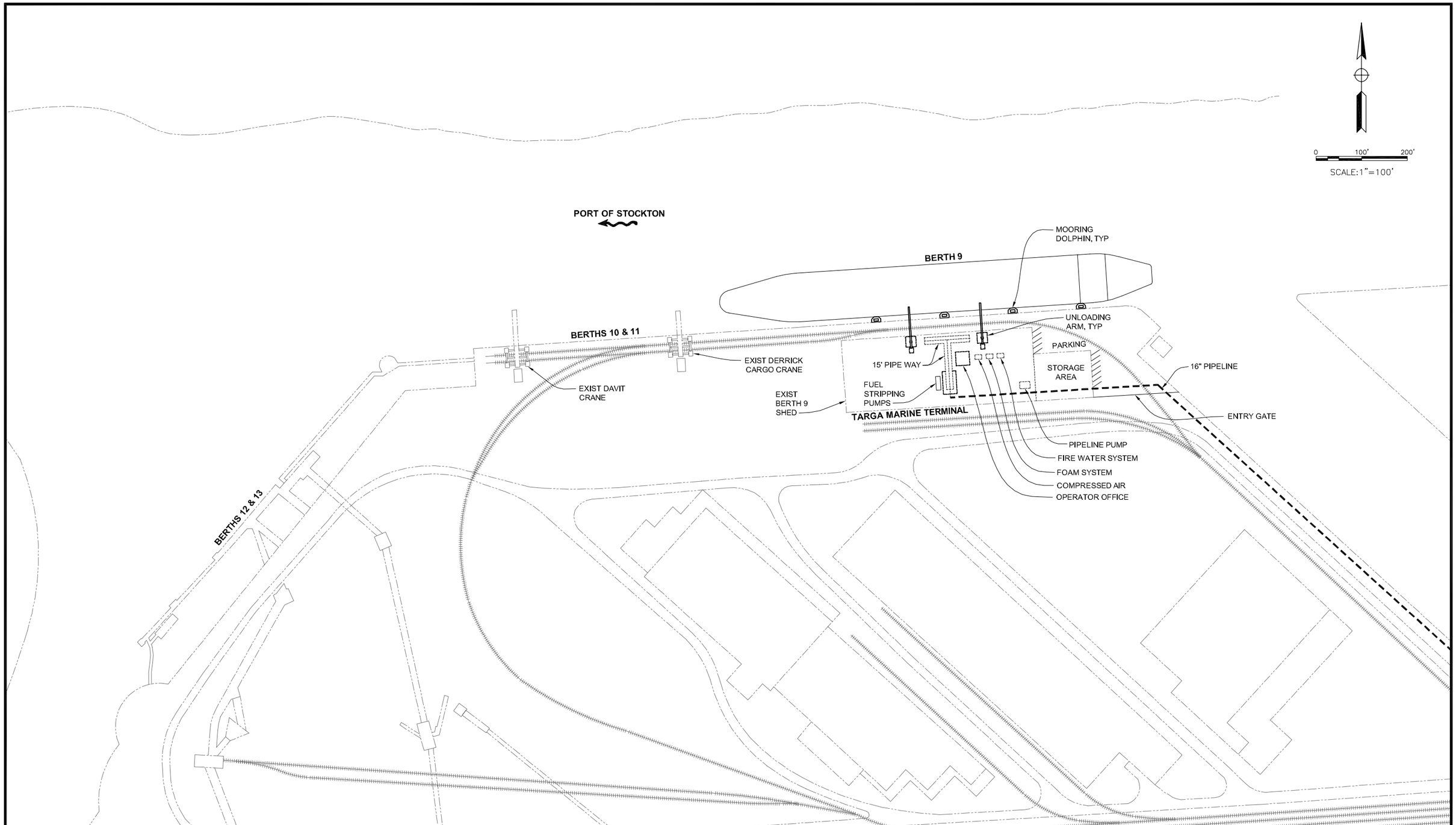
BY:

FIGURE: **3.5-1**

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA



REV.	DESCRIPTION	BY	APP.	CHKD

BERTH LAYOUT PLAN

DATE:	SCALE:
BY:	FIGURE: **3.5-2**

TARGA

FACILITY:
TARGA TERMINAL
STOCKTON, CALIFORNIA

3.5.1.2 Off-loading / Loading Arms

Targa proposes two 16-inch, double-counter-weighted marine arms (DCMA) for loading and off-loading. The DCMAs are the articulated pipes that connect a ship or barge to the berth's piping system.. A fixed control station would be constructed in a strategic location (Existing Berth #9 Shed) to provide good visibility, and wireless handheld control stations would be constructed for operator mobility. The arms would be equipped with quick connect/disconnect couplers at the manifold.

3.5.1.3 Containment Curbing and Sump System

All deck areas on Berth #9 that would be subject to potential leaks, spills, drips from equipment, pipe flanges, pumps, loading arms, and valves would be contained within a 6-inch-high curbed area. Rainwater falling into this area would be collected and drained to a sump. Pumps would be installed to pump the sump water to the proposed Targa Stockton Terminal water treatment oil-water separator and discharged pursuant to a National Pollutant Discharge Elimination System (NPDES) permit.

3.5.1.4 Piping, Pumps, and Valves

All piping on Berth #9, within the Port and the proposed Targa Stockton Terminal will be American Petroleum Institute (API) Spec 5L line pipe, standard XS wall for the large lines, and Sch 40 or Sch 80 for the smaller lines. Piping will be supported above deck on guided or anchored supports. Pumps with 125 gallons per minute (gpm), 20 horsepower, positive displacement, 150 psig discharge dockside pumps will be utilized for the arms. Two 1,500 horsepower pumps will be utilized to move product from Berth #9 to the Tank Farm or from the Tank Farm to Berth #9. Most of the valves on the berth deck will be gate valves, while fire water valves will be the outside stem and yoke type. Check valves will be used on the various lines in the system to prevent backflow. Since fuel lines would be bidirectional, the line would have a two-way valve station with opposite facing check valves.

3.5.1.5 Berth Fire Prevention, Detection, and Suppression System

Per MOTEMS Section 3108F.2, a site specific Fire Protection Plan would be prepared as part of the Fire Hazards Analysis and Risk Assessment to determine final design requirements. Fire protection systems would be designed in accordance with applicable Port, City, and State of California fire codes as well as the National Fire Protection Association (NFPA). Devices capable of detecting the presence of open flames (flame detectors) would be installed at the berths. The flame detectors would be positioned to cover strategic areas such as around motorized pumping areas and the berth loading dock. The flame detectors would be tied to a flame-detector control panel. Upon detection of a fire, the flame detectors would automatically trigger a fire alarm signal.

3.5.2 Storage Tanks

The site plan layout for the proposed tank farm area is shown on Figure 3.2-1: Targa Stockton Terminal General Site Plan with Aerial. Table 3.5-1 also contains detailed characteristics of the

facilities. The tank farm would consist of 20 tanks with a total storage capacity of 850,000 bbls, and would include containment walls and manifolds. Most piping within the tank farm would be aboveground.

Table 3.5-1: Tank Farm Descriptions

Component	Proposed Tank Farm Site
Parcel size	19 +/- acres (867,715 square feet)
Tanks (internal floating roof)	Four 80,000-barrel (bbl) tanks Eight 50,000-bbl tanks Five 20,000-bbl tanks Three 10,000-bbl tanks
Vapor recovery	Vapor holding tank, vapor compressor, and PURGIT condensers
Pumps	Transfer-rack pumps with variable-frequency drives, vertical-turbine transfer pumps, mixing pumps, tank-proportioning pumps, and sump pumps
Pipeline pigging	Pipelines will be piggable *(Pigging in the context of pipelines refers to the practice of using pipeline inspection gauges or 'pigs' to perform various maintenance operations on a pipeline.)*
Buildings	Office/control building
Parking	For office/operations and security and maintenance vehicles
Fire-fighting systems	Fire-water main, foam storage and transportation trailer, fire monitors, engine-driven fire-water pump
Sewer connection	City of Stockton sewer system
Security	Perimeter fence, cameras with local or remote monitoring and control
Lighting	As required for safe operation in accordance with local and national regulations

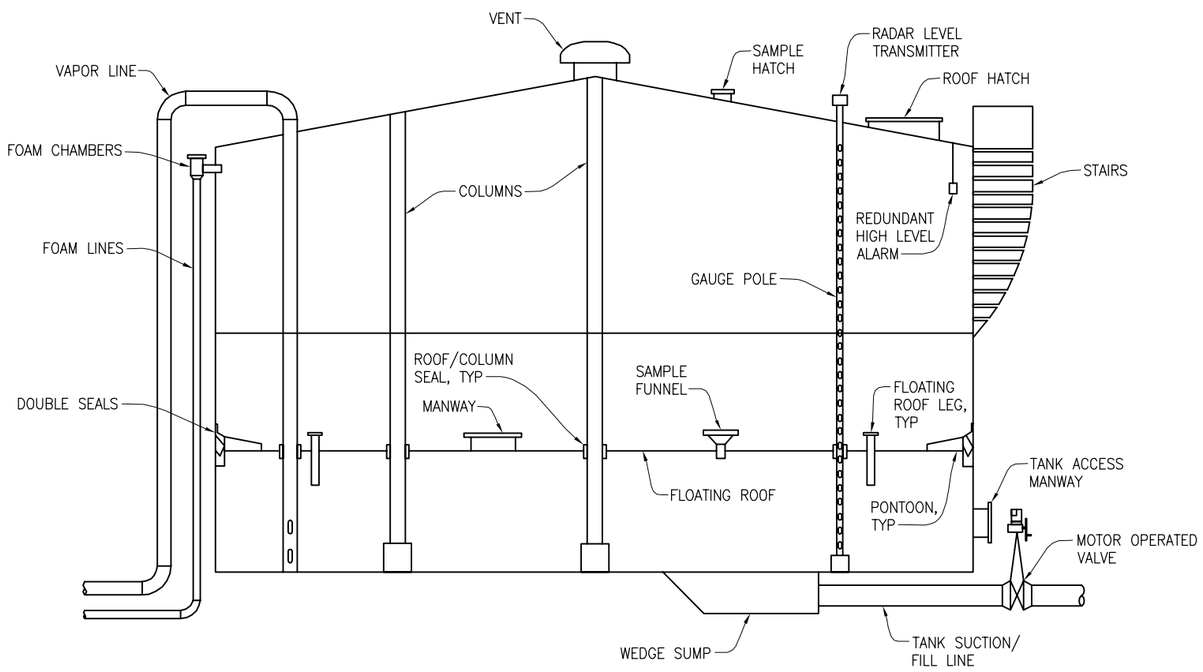
The tank farm would be equipped with a tank vapor collection system to collect emissions generated during tank-filling operations when the tank roofs are being floated. The floating roof, with the primary and secondary seals, would be used to control emissions at all other times. Each system would consist of vapor-collection pipe headers, a vapor compressor, vapor bladder tank, vapor discharge headers, and associated controls. The collection systems would transport the vapors to air pollution control systems. The floating roof, primary and secondary seals, and vapor collection and control are considered to be BACT for crude oil storage tanks and meet the requirements of the SJVAPCD for such tanks. PURGIT condensers would be installed at the tank farm to condense all vapors collected in the vapor holding tanks and return to the storage tanks.

All tanks would be BACT compliant as required by the SJVAPCD. BACT is the most stringent emission limitation or control technique that has been achieved in practice or is considered to be technologically feasible. Each tank would have a fixed roof in addition to the internal floating roof. Floating roofs control emissions by covering the product, thus minimizing vapors from forming. As required by SJVAPCD rules, the internal floating roofs would be equipped with primary and secondary seals around their perimeters.

The steel structures included in the proposed Targa project design would include equipment skids and racks, pipe supports, stiles, loading racks, and the loading rack canopy. Pipe supports, pipeways, and sleepers would be designed to optimize proposed Targa project operations and maintenance. Consideration for future expansion would be included in the design. The use of above-grade piping and conduit runs would be maximized to the extent feasible. Pipeways and sleepers would be designed to allow room for construction of full build out plus 10 percent expansion. All structures would be designed to comply with applicable American Concrete Institute; American Institute of Steel Construction, Inc.; American Welding Society; and American Society of Testing and Materials standards.

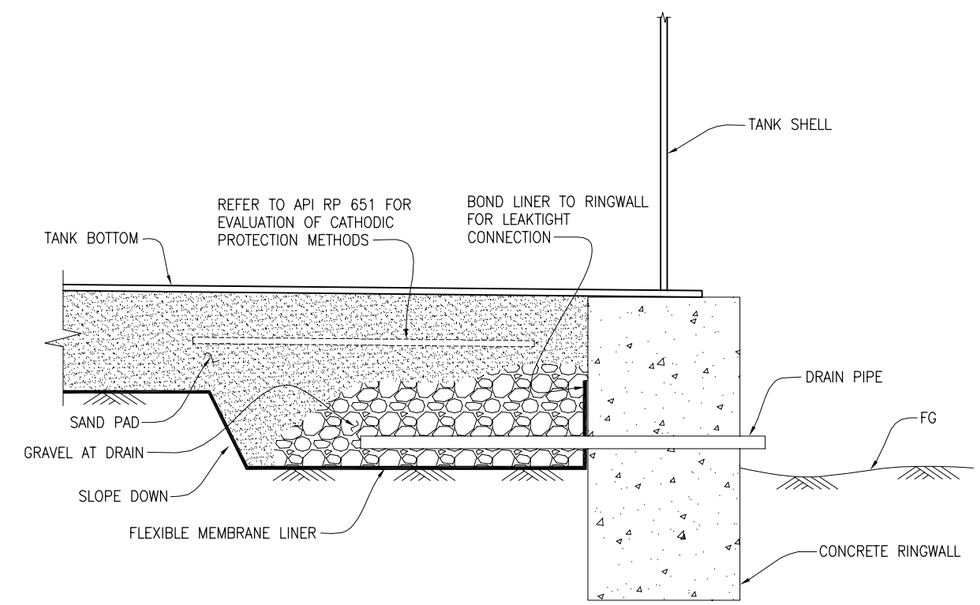
The proposed Targa project would utilize a computerized control system referred to as a Supervisory Control and Data Acquisition (SCADA) to receive data from various instruments and measuring devices throughout the terminal and pipeline system and collect them in the Programmable Logic Controller (PLC). The PLC then sends instructions to various pieces of equipment located throughout the project facilities and along each pipeline connection. Operators and controllers would use the SCADA system to automatically adjust the pressure and flow rate within the system to provide for safe operation of the terminal system.

Under-tank leak detection shown in Figure 3.5-3: Storage Tank Details would be provided for each of the fuel storage tanks. The leak-detection system would meet the requirements of API 650, Appendix I, Figure I-1. The maximum spacing of drain pipes would be 50 feet, with a minimum of four drain pipes per tank (one for each quadrant). However, two drain pipes may be used for tanks 20 feet or less in diameter. Construction of the membrane liner, a component of the tank foundation, would be of high-density polyethylene and is depicted on Figure 3.5-3: Storage Tank Details.



TYPICAL TANK DESIGN

1/4"=1'-0"



UNDERTANK LEAK DETECTION

1"=1'-0"

REV.	DESCRIPTION	BY	APP.	CHKD

STORAGE TANK DETAILS

DATE:

SCALE:

BY:

FIGURE: **3.5-3**

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

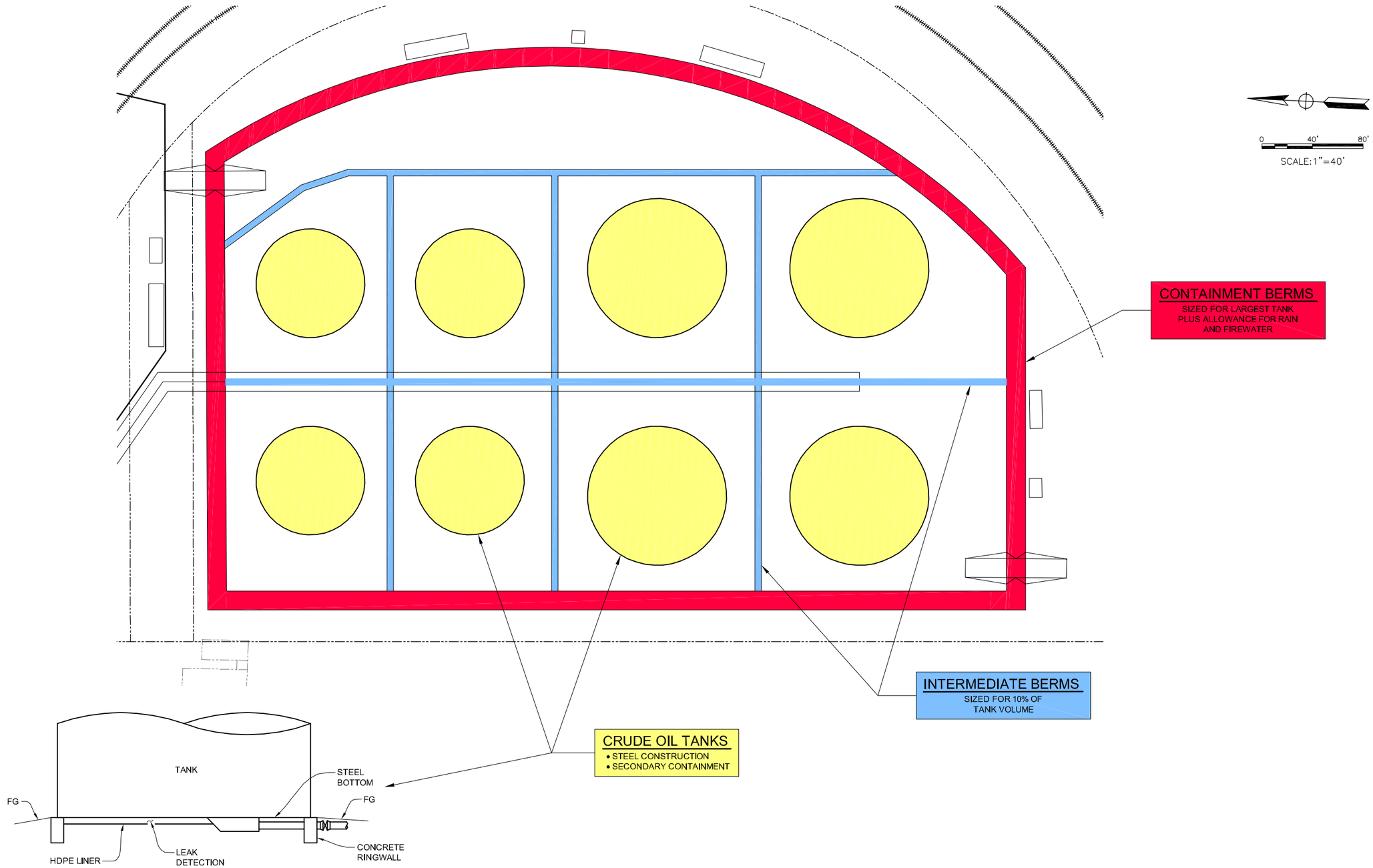
Based on the soil conditions and geotechnical reports provided by Pacific Ethanol, and updated by Targa, the tank foundations on the proposed lease area may require pilings beneath the storage tanks to support the weight due to the poor soil conditions. The proposed lease area would be constructed to include a layer of substantially impermeable soil, in compliance with EPA (40 Code of Federal Regulations [CFR] 112) regulations. Earthen dikes would provide the required secondary containment capacity. The proposed lease area would be accessible by means of ramps over the containment dikes. Masonry walls would be constructed to provide secondary containment if needed (*See Figure* 3.5-4: Typical Tank Containment System).

3.5.3 Control Building

A control building would be situated in the western section of the proposed lease area (refer to Figure 3.2-1: Targa Stockton Terminal General Site Plan with Aerial) and would include the control room, an office for the terminal manager, restroom facilities, lockers for the operators, and the terminal control panels and control equipment. The control building would consist of a prefabricated steel metal shell designed and constructed to meet the requirements of the California Code of Regulations Title 24. The prefabricated building would be installed on piers with footings designed and constructed to meet the building requirements of the local, State, and federal agencies having jurisdiction. Pressure and humidity control would be provided where the environmentally sensitive electronic equipment is located or where required due to electrical area classification.

3.5.4 Other Buildings

Other buildings at the proposed Targa Stockton Terminal facility may include a maintenance shop, sample shed, and bill of lading building. The maintenance shop would include restroom facilities, lockers for maintenance staff, an office for the terminal maintenance manager, and workshop and storage space. The sample shed would house the equipment used to store product samples. The maintenance shop, bill of lading building, restroom facilities and sample shed would also be constructed of prefabricated steel metal shells that meet the requirements of the California Code of Regulations Title 24. The workshop area would include a common-trench drain centered on the long axis of the shop. Liquid that runs down this drain would be routed to the oil-water separator before being discharged into the existing sanitary sewer system.



REV.	DESCRIPTION	BY	APP.	CHKD

TYPICAL TANK CONTAINMENT SYSTEM

DATE:	SCALE:
BY:	FIGURE: 3.5-4

TARGA

FACILITY:
TARGA TERMINAL
STOCKTON, CALIFORNIA

3.5.5 Truck Loading-rack Canopy

The proposed Targa project would include a truck loading rack to facilitate the loading of tanker trucks with trailers. The truck loading rack would be constructed of prefabricated steel to house an overhead pipeway. Each loading bay would be constructed of steel and include product metering and control equipment and loading arms. A berm would be constructed along the truck entrance and exit sides of the truck loading rack to prevent rainwater from entering the spill-containment area. Curbs would be constructed along the other sides of the truck loading rack.

A pump would be provided for off-specification product return and ethanol off-loading. There would be individual pumps with individual return lines to transmix, ethanol, and bio-diesel. The pump would have a local start/stop push-button station for control. The tanks would all be equipped with a redundant high-level alarm.

3.5.6 Railcar Off-loading Rack

The proposed Targa project would use the existing rails that were improved by Pacific Ethanol. Currently, Pacific Ethanol receives one unit train shipment of corn per week, which leaves capacity for the proposed Targa Stockton Terminal to receive product by rail the remainder of the week. Targa anticipates the ability to off-load a unit train in 24 hours. The proposed Targa project would include a railcar off-loading system to facilitate the off-loading of rail cars. The rack system can be expanded to load products by adding pumps, a product header, and a vapor recovery header. The track would have pans and piping connections for 12 unloading positions. The rail off-loading rack would be constructed of prefabricated steel to support the pipeway. Each loading header would be constructed of steel and include product metering and control equipment.

A pump would be provided for the off-loading of the rail cars to the storage tanks. The pump would have a local start/stop push-button station for control. The storage tanks would have a redundant high-level alarm.

3.5.7 Additive Systems

The proposed Targa project would include several additive systems. Each additive tank would have a dedicated pump skid that would pump to the injectors as required by the specified product load. The additive tanks are sized at 10,000 gallons each to receive an 8,000-gallon truck shipment. The additive injection would be controlled by the truck loading rack control system. The additive tank would have level indication and an overfill alarm switch and horn to alert the driver in case of overfill.

3.5.8 Motor Control Center

The proposed Targa project would include a motor control center, which would be installed in a nonhazardous area. The motor control center would have a lighting panel to supply all 120-volt circuits on the site, except at the major buildings. The electrical service would originate from a new electrical substation located in the lease area.

3.5.9 Fire Protection

The fire protection system would provide protection for the storage tanks, truck loading rack, railcar off-loading rack and Berth #9 control building. A 10-inch-diameter fire-water system loop would be installed with hydrants and monitors spaced around the perimeter of the proposed lease area. The hydrants and monitors would be fed by the City water main via a back-flow preventer. The foam system would supply foam solution to the storage tanks, the truck loading rack, and the railcar off-loading rack.

All storage tanks would be provided with either one fixed foam discharge chamber outlet each or with two or more outlet chambers as may be required depending on tank product designation. The required minimum application rate of fixed foam discharge protection for top-of-seal floating roof tanks is 0.3 gpm/ft2, and the minimum discharge time is 20 minutes. The foam solution piping fabrication and installation would comply with the latest edition of NFPA Standard 11 for low-expansion foam and combined-agent systems.

The control building would be equipped with an Inergen fire-suppression system and designed for an assumed 600 square feet of sensitive equipment space. The Inergen fire-suppression system is an environmentally “green” three-dimensional fire-suppression agent replacing Halon 1301. The systems includes critical facilities such as data processing rooms; telecommunications switching facilities; process control rooms; and a non-water-based extinguishing agent that is electrically nonconductive, is safe for use in human-occupied facilities, and has zero ozone depletion and zero atmospheric lifetime. The system would include four discharge nozzles, heat-detection sensors, a control panel, and a 15-square-foot closet to house seven product cylinders.

The emergency deluge system would consist of two combination emergency showers, eye-face wash units, and drench hose units located at the north side of the truck loading rack. The system would include tempered water, freeze protection, and controls. The fire-water line, fire connections, hydrants, valves, and pipe fittings would comply with the latest edition of NFPA Standard 24 for private fire service mains and their appurtenances. All fire-protection systems would be required to meet the requirements of the Uniform Fire Code, NFPA standards:

- NFPA 30: Flammable and Combustible Liquids Code
- NFPA 11: Low-, Medium- and High-expansion Foam
- NFPA 13: Installation of Sprinkler Systems
- NFPA 16: Installation of Foam-water Sprinkler and Foam-water Spray Systems
- NFPA 24: Installation of Private Fire Service Mains and Their Appurtenances

3.5.10 Lighting

Photocell-controlled overhead lighting would be provided at the proposed lease area, including at the truck loading rack and general area lighting at the railcar off-loading and the new project access road. Metal halide lighting is proposed for good color rendition.

3.5.11 Security

Cameras would be installed for security and to monitor rack loading. The cameras would connect to a monitor and digital video recorder in the control building. A camera would be placed on each load lane, and at the entry and exit gates. Truck entry and exit gates would be controlled. Public access would be allowed to the front of the control building only and not to the interior of the facility.

3.5.12 Pipeline Supply Connections

Petroleum products would be delivered to the proposed Targa Stockton Terminal by means of connections with the existing Kinder-Morgan pipeline and the proposed deep-water channel Port facility marine connection pipeline. Large shipments of petroleum products would be delivered to the Targa Stockton Terminal by one of the two pipelines. The balance of the petroleum receipts would originate from railcar and truck shipments. Kinder Morgan operates the pipelines servicing the Stockton region. The proposed branch pipeline from the Kinder Morgan local distribution manifold to the proposed lease area would be operated by Targa. The proposed branch pipeline extension would be utilized for multiple petroleum products. Product interface would be determined by sampling the incoming lines for changes in specific gravity. The terminal operator would be responsible for ensuring batch changes occur to minimize product contamination.

The receiving line from the pipeline would be equipped with a metering system and connections for a portable prover to calibrate the meter. The incoming line would be connected to the incoming manifold to distribute product through separate branches for unleaded regular gasoline, premium gasoline, diesel, and transmix. The transmix tank would be sized to provide capacity for full flow relief for 15 minutes. Provisions would be made to accommodate the receipt of products from both the Kinder Morgan and the Deep-water channel port facility marine pipeline connection because receipt of the same product simultaneously may cause measurement issues or impact the quality of the product.

3.5.12.1 Kinder Morgan Pipeline Connection

The Kinder Morgan pipeline is located in and along Navy Drive, adjacent to and along the northern border of the proposed lease area (refer to Figure 3.5-1: Pipeline Route and Connection Map). This portion of the pipeline is an 8-inch-diameter line originating at Kinder Morgan's Concord Station and ending at the Bradshaw terminal in Rancho Cordova, CA. It is proposed to connect to the Kinder Morgan line at the distribution manifold, which is located directly north of the proposed lease area at the existing terminal operations along Navy Drive. Based on a maximum flow rate of 4,000 bbls per hour, the branch line into the proposed lease area would be 8 inches in diameter. Figure 3.5-1: Pipeline Route and Connection Map illustrates the pipe connection layout and location.

Although custody transfer would occur at the Kinder Morgan distribution manifold, a turbine meter would be installed to measure the product being received at the terminal. The turbine meter would be calibrated using a portable prover to ensure the accuracy of the meter to verify

the volume of product being received. The product received by pipeline would be distributed to one of 11 storage tanks. One of the storage tanks would be designed and used as a "swing tank" for which the piping can be easily modified to change the product in the tank. A 20,000-bbl transmix tank would be constructed to handle off-specification products and pipeline transmix. A motor operated isolation valve would be installed on the 10-inch-diameter branch at the pipeline to the proposed Targa project interface.

3.5.12.2 Deep-water Channel Berth Pipeline Connection

To receive petroleum products or ship petroleum products (Bakken Crude Oil) from Berth #9 by barge or tanker ship, a new 3,626 feet pipeline connection would have to be constructed to connect the Berth #9 facilities to the proposed terminal/tank farm lease area. This proposed pipeline would follow along Port Road 5 from Berth #9, then along Port Road 13 going south to West Washington Street, then west to Navy Drive to the proposed terminal/tank farm lease area in order to keep the pipeline within dedicated public ROW. (*See Figure* 3.5-1: Pipeline Route & Connection Map above).

The pipeline would accommodate a maximum flow rate of 10,000 barrels per hour (bph). The pipeline would consist of API 5L X52, WT 0.250" ERW pipe. The pipeline would require a five-foot permanent easement and a minimum of five feet of cover above the top of the pipe within City of Stockton streets, and a temporary construction easement up to 50 feet in width for construction.

3.5.13 Access and Product Off-site Transport

Access to the proposed Targa Stockton Terminal would be accommodated from the existing Pacific Ethanol access road that connects the proposed lease area at Navy Drive. The proposed Targa project would create two access points off the Pacific Ethanol access road. One new emergency access driveway to the proposed lease area would cross an existing rail spur located along the south side of proposed lease area, and would include all required safety and warning devices. The main access point would be located adjacent to the existing access point for the Pacific Ethanol Plant main gate and would parallel the rail spur on the 100-foot western edge of the existing Pacific Ethanol lease, which was reserved by the Stockton Port District as an access easement on the lease. Figure 3.5-5: Access Easements, provides a schematic of the proposed access points. As shown, two points of ingress and egress to the proposed lease area would originate off the Pacific Ethanol Plant access road. The main access point would provide entry to the proposed Targa project truck loading rack, which would initially provide a truck staging area just after the security gate for loading truck transports. Truck traffic would be one way and proceed out of the proposed lease area north of the truck loading racks and back out the same entry roadway. The southern emergency access location would be for emergency vehicles and Targa maintenance vehicles only.

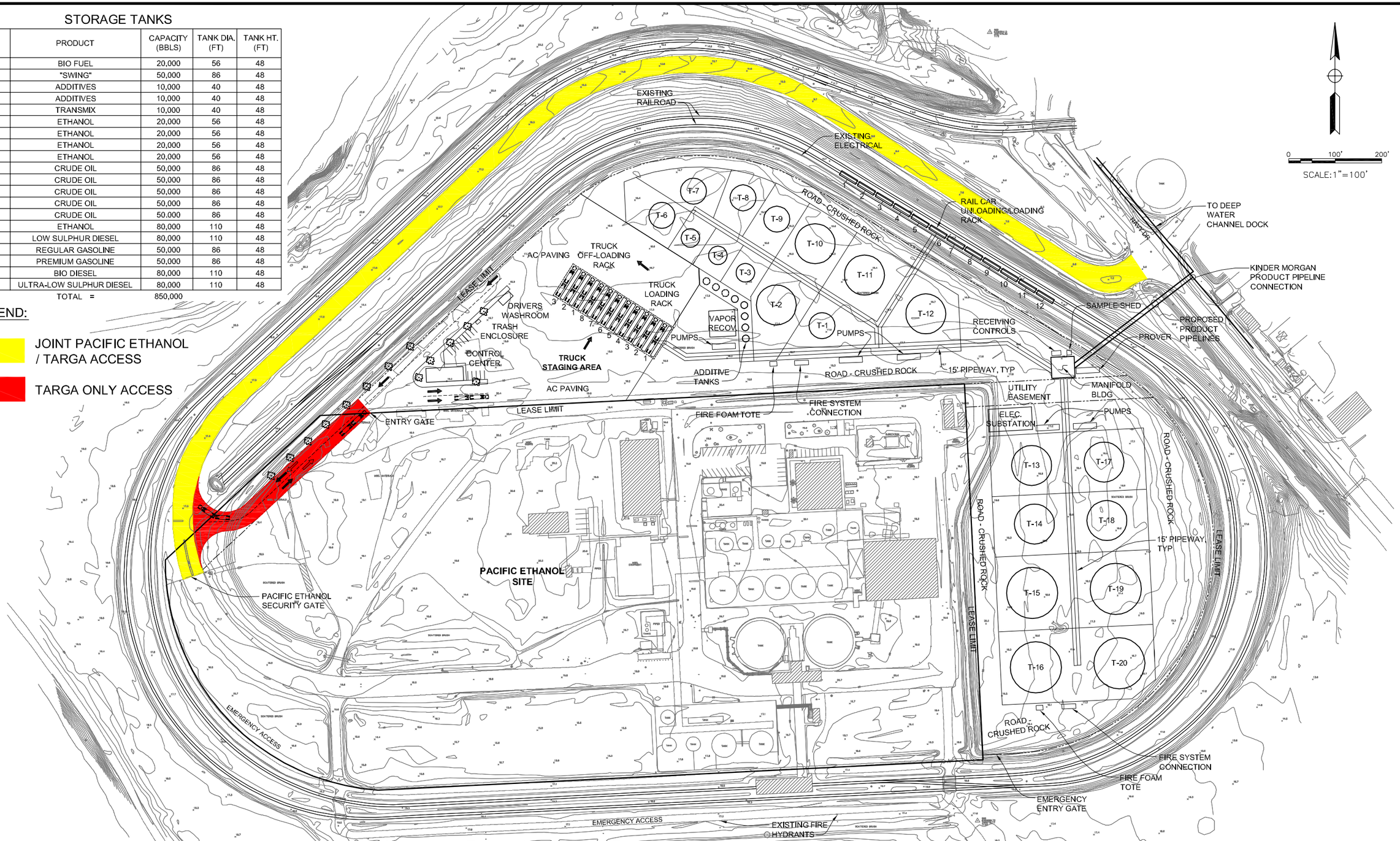
STORAGE TANKS

TANK NO.	PRODUCT	CAPACITY (BBLS)	TANK DIA. (FT)	TANK HT. (FT)
T-1	BIO FUEL	20,000	56	48
T-2	"SWING"	50,000	86	48
T-3	ADDITIVES	10,000	40	48
T-4	ADDITIVES	10,000	40	48
T-5	TRANSMIX	10,000	40	48
T-6	ETHANOL	20,000	56	48
T-7	ETHANOL	20,000	56	48
T-8	ETHANOL	20,000	56	48
T-9	ETHANOL	20,000	56	48
T-10	CRUDE OIL	50,000	86	48
T-11	CRUDE OIL	50,000	86	48
T-12	CRUDE OIL	50,000	86	48
T-13	CRUDE OIL	50,000	86	48
T-14	CRUDE OIL	50,000	86	48
T-15	ETHANOL	80,000	110	48
T-16	LOW SULPHUR DIESEL	80,000	110	48
T-17	REGULAR GASOLINE	50,000	86	48
T-18	PREMIUM GASOLINE	50,000	86	48
T-19	BIO DIESEL	80,000	110	48
T-20	ULTRA-LOW SULPHUR DIESEL	80,000	110	48
	TOTAL =	850,000		

LEGEND:

JOINT PACIFIC ETHANOL / TARGA ACCESS

TARGA ONLY ACCESS



REV.	DESCRIPTION	BY	APP.	CHKD

ACCESS EASEMENTS

DATE:

SCALE:

BY:

FIGURE: 3.5-5

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

3.5.14 Stormwater Runoff Plan

The Port has developed a Stormwater Development Standards Plan (DSP). The project is south of Washington Street and within the DSP's East Complex. All stormwater within this complex drains to a stormwater retention basin as depicted in Figure 3.4-3: Project Setting. During years when the retention basin reaches a high level, stormwater is pumped to the San Joaquin River (Port of Stockton Stormwater Development Standards Plan, Revised April 17, 2006, Page 3). The Port DSP specifies a number of Best Management Practice requirements that are specific to each drainage zone and are applicable to this project. As part of the project's stormwater runoff plan, the proposed lease area would be subdivided into areas classified according to the means of handling drips, spills, and stormwater (*See Figure* 3.5-6: Stormwater Classification). Runoff from the access roadway would be designed to flow to the Port's designated stormwater detention basin. A dike would be constructed around the proposed lease area at a sufficient height to contain the contents of the largest tank plus 10 percent of the volume of that tank. The proposed Targa project peripheral areas, including landscaped areas, paved walkways, crushed-rock roadways, and building roofs, would be drained naturally by percolation into the soil or by surface runoff to the stormwater collection and discharge system maintained by the Port (*See Figure* 3.5-7: Preliminary Grading Plan).

The project's stormwater runoff plan would identify contact areas as those areas where small quantities of product could be dripped or spilled (*See Figure* 3.5-6: Stormwater Classification). These may include small tanks, process- or product-handling equipment, product loading or unloading operations, or maintenance areas. These areas would be curbed or diked as required to contain drips or spills as well as stormwater in the amount required by the Port. After a storm event, the water would be tested. Tested water meeting the quality requirements would be discharged to the drainage-collection system. Contaminated water would be discharged to an oil-water separator, or removed by vacuum truck or other means. Stormwater from the truck loading-rack canopy and paved areas would be discharged to the Port storm-drain system.

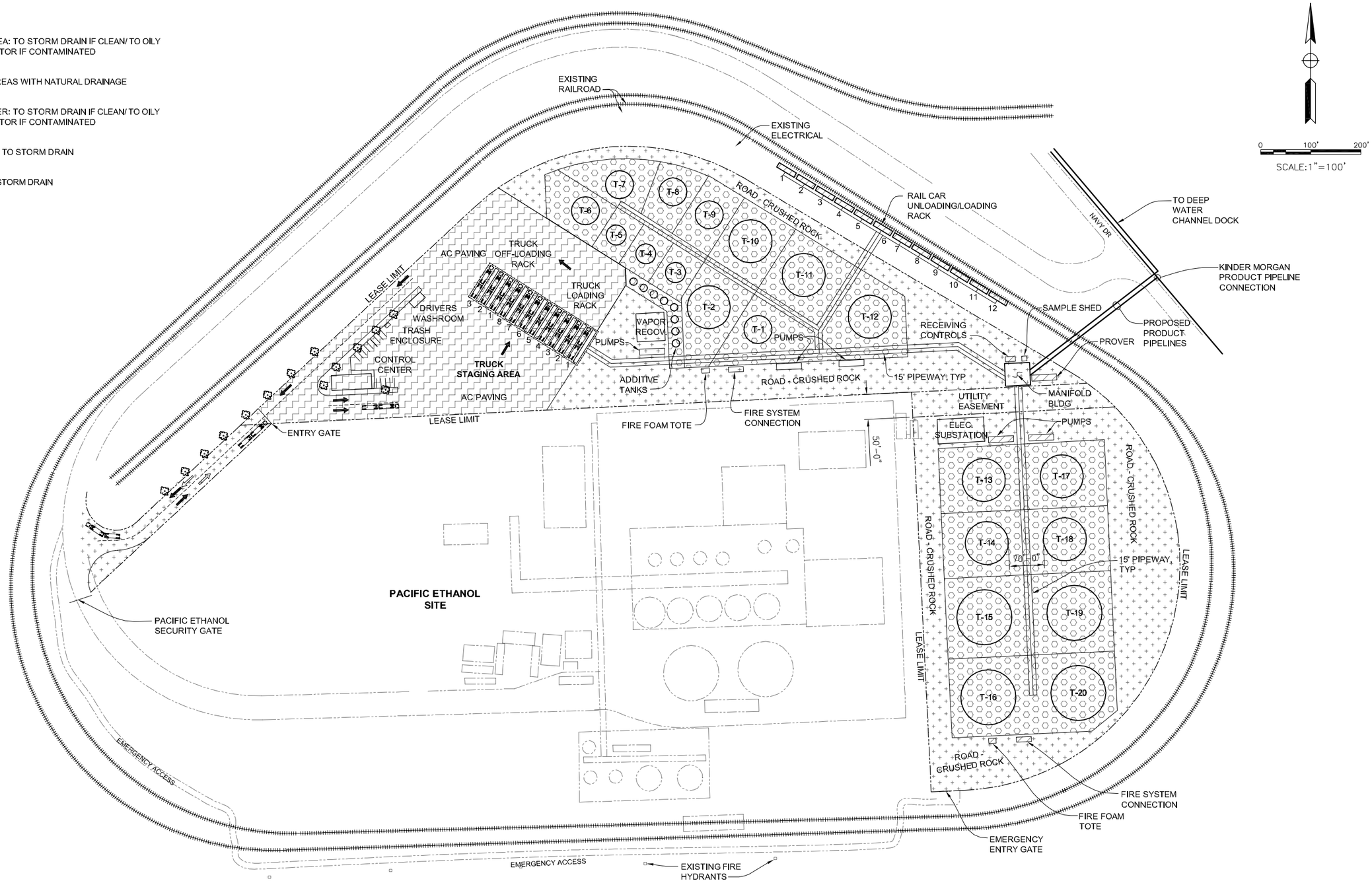
The ethanol unloading and loading area would be treated as a contact water area. Drips, spills, and stormwater would be gathered in pans installed under the railroad tank cars. Stormwater collected from the pans would be discharged into the oil-water separator or removed directly by a vacuum truck for treatment off-site. Spills of ethanol in excess of the pans' capacity would drain by gravity to an earthen-berm containment area located near the off-loading area.

3.5.15 Oil-water Separator

The proposed Targa project would include an underground oil-water separator installed near the drainage outlet for the lease area in the eastern portion of the lease area. There would be a product pump and a water pump controlled by level switches in the oil-water separator. The product pump would pump to the transmix tank, and the water pump would pump to the sewer. The oil-water separator would be double walled and include leak detection installed in the annular space. The facility would include an alarm for leak detection (*See Figure* 3.5-8: Contact Water to Oil-water Separator).

LEGEND:

- TANK FARM AREA: TO STORM DRAIN IF CLEAN/ TO OILY WATER SEPARATOR IF CONTAMINATED
- PERIPHERAL AREAS WITH NATURAL DRAINAGE
- CONTACT WATER: TO STORM DRAIN IF CLEAN/ TO OILY WATER SEPARATOR IF CONTAMINATED
- TRUCK CANOPY TO STORM DRAIN
- AC PAVING TO STORM DRAIN



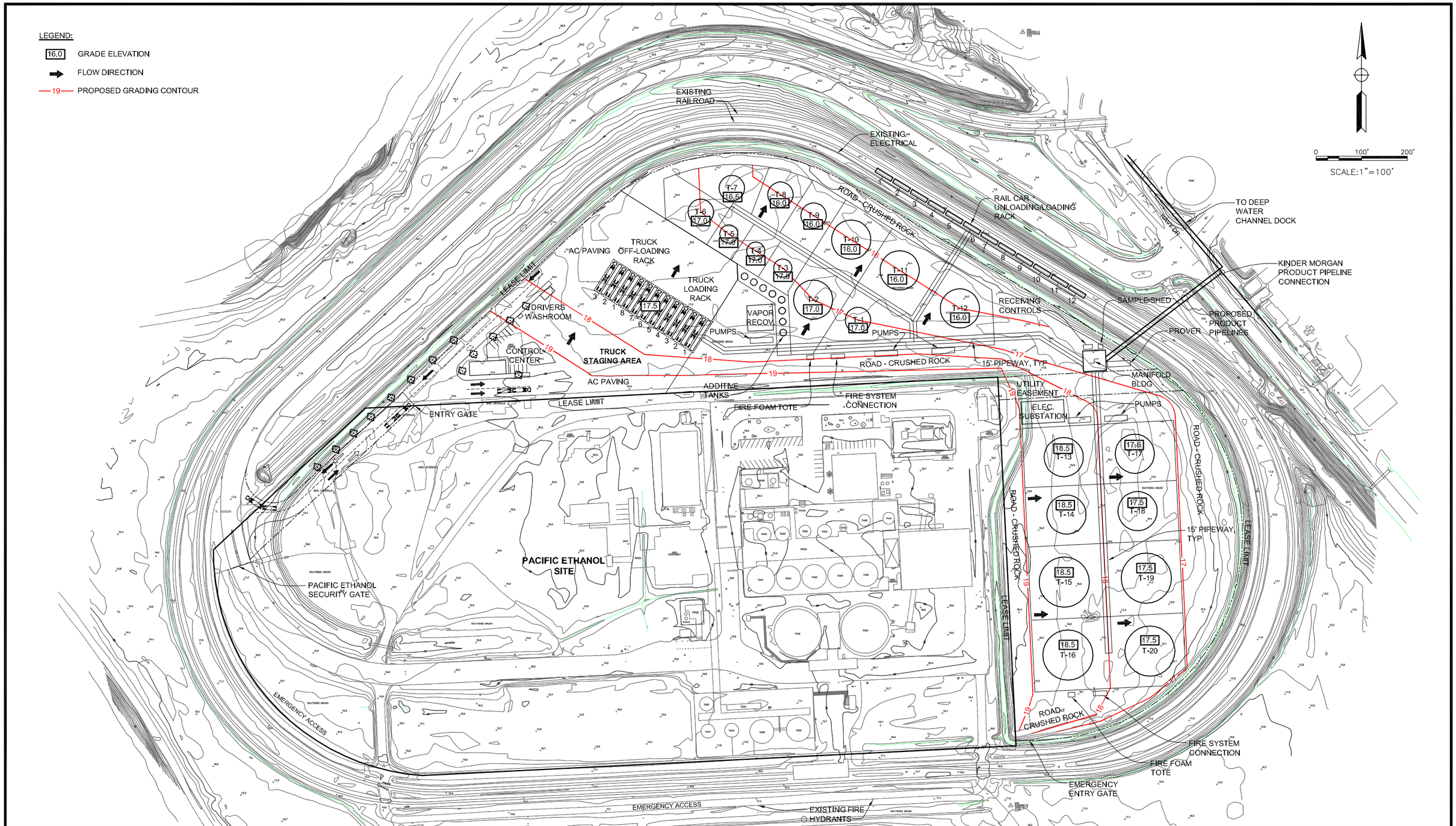
REV.	DESCRIPTION	BY	APP.	CHKD

STORM WATER CLASSIFICATION

DATE:	SCALE:
BY:	FIGURE: 3.5-6

TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**



REV.	DESCRIPTION	BY	APP.	CHKD

GRADING PLAN

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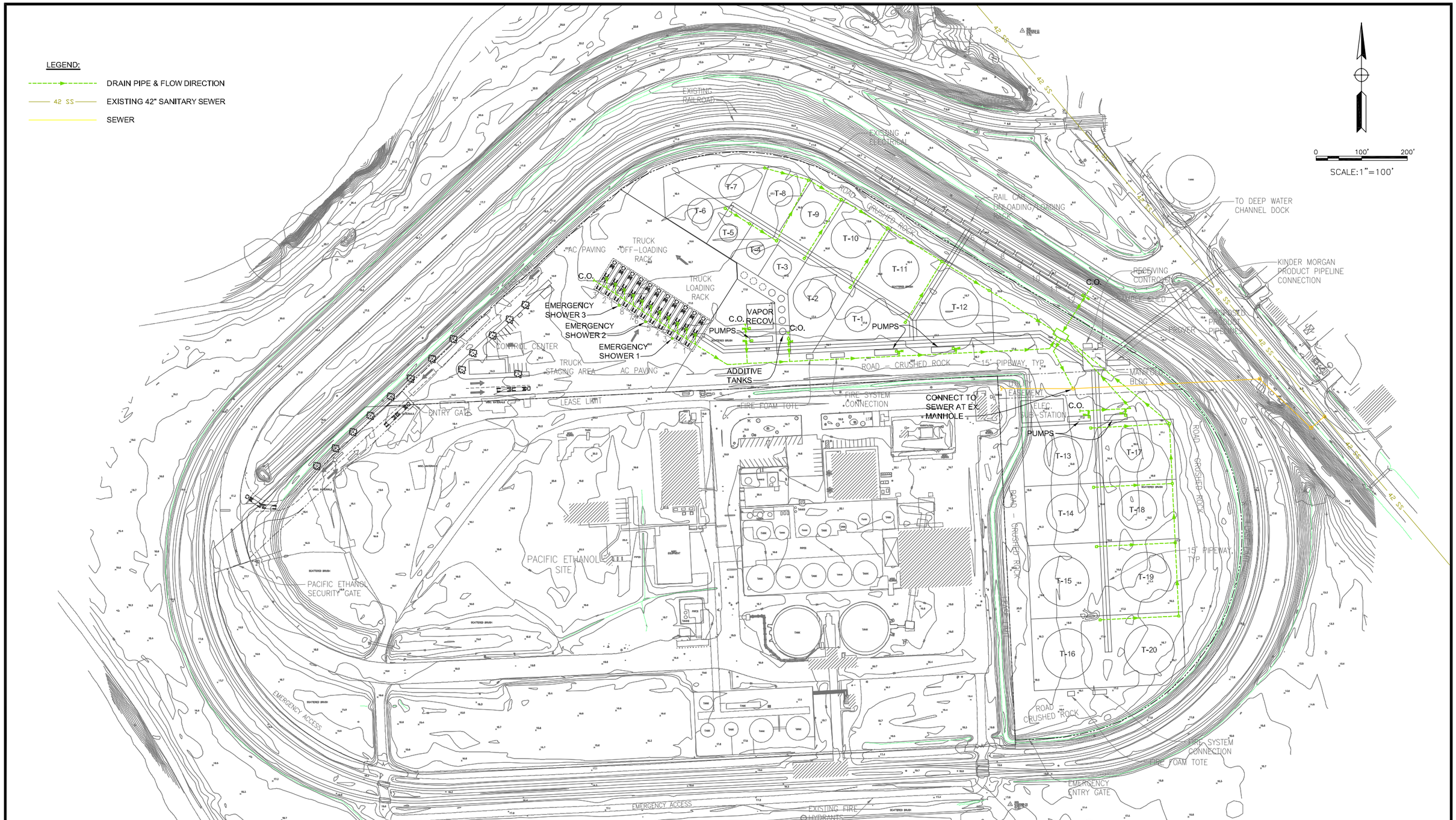
BY:	FIGURE: 3.5-7

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA



REV.	DESCRIPTION	BY	APP.	CHKD

CONTACT WATER TO OIL WATER SEPARATOR

DATE:

SCALE:

BY:

FIGURE: 3.5-8

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

3.5.16 Emergency Shutdown System

The proposed Targa project would include an emergency shutdown system consisting of hard-wired push-button switches. The emergency shutdown system would shut down the truck loading rack by means of a permissive to the rack control system. This would close all control valves on the truck loading rack and remove the product and additive pump signals. It would include a hard-wired shutdown for all pumps at the proposed Targa Stockton Terminal, which would stop all loading and off-loading.

3.5.17 Cathodic Protection

Although a majority of piping would be above grade, all buried piping and tank bottoms would be protected by a cathodic protection system.

3.6 TERMINAL CONSTRUCTION

3.6.1 Targa Stockton Terminal Construction

Construction of the proposed Targa project would include grading of the lease area and placement of foundations and infrastructure. Construction would begin with site grading, cutting, and filling to ensure that the lease area drained properly into the surrounding drainage system.

Facilities that would be constructed aboveground would include the storage tanks, control and maintenance building, motor control buildings, truck loading rack, railcar loading rack, access road, fencing, and additive storage structures. Each of these structures would be single story, with the storage tanks being the tallest structures at 48 feet. The primary materials to be used during proposed Targa project construction would be concrete and steel. Major process piping and storage tanks would be made of steel. The major construction phases for the proposed Targa Stockton Terminal would include:

- Rough grading and site staking;
- Excavation and site work;
- Structural facilities;
- Electrical, process mechanical, and instrumentation installation;
- Paving and striping;
- Architectural and landscaping; and
- Start up and testing.

3.6.1.1 Rough Grading and Site Staking

Survey staking would be used to define the limits of the proposed terminal lease area. Overgrown vegetation that would interfere with construction would be removed from the lease area. No tree clearing would be necessary at the terminal. The estimated time to complete this construction phase is three to four weeks.

3.6.1.2 Excavation and Site Work

After the proposed lease area is cleared of underbrush, grading would begin. Following rough grading, additional excavation would bring the lease area to final grade and prepare the soil for underground piping and structural slabs. The areas under the storage tanks and truck loading rack would require excavation and re-compaction. For detailed discussion, please refer to Appendix J—Engineering Feasibility Report). Site work would involve installing underground pipes (6-inch-diameter or larger), manholes, structural foundations, curbs, gutters, and sidewalks. Excavation for concrete foundations, retaining wall footings, and underground drainage pipes would be performed with excavators and/or backhoes. This construction phase is expected to last six to eight weeks.

3.6.1.3 Structural Facilities

This phase would consist of compacting and preparing the soil for all structural facilities and developing piers for foundation systems. Prior to pouring concrete, structural forms, rebar, and conduits would be installed for each facility. After the concrete is poured, it would be finished and cured before the forms are removed, and the overhead structural steel and roof decking would be erected. This construction phase is expected to last up to five months.

3.6.1.4 Paving and Striping

All parking areas, roads, and designated locations would be paved and striped. Paving would be performed incrementally throughout the site area as large construction and non-rubber tread equipment is removed from the site. This phase of construction is expected to last three to four weeks.

3.6.1.5 Electrical, Process Mechanical, and Instrumentation Installation

After the structures are erected and roofed, electrical equipment (e.g., machinery control consoles, switchboards, lighting, etc.) would be installed. Site work such as installing pull boxes, conduits, and cables would continue. Process mechanical equipment (e.g., pumps and additive injection systems) would be installed and piped through the Targa Stockton Terminal. Site work would continue, as small-diameter chemical piping would be routed throughout the site. After roofs on buildings and facilities are secured, flow meters, level probes, pressure meters, and other instrumentation (e.g., as process analyzers) would be installed. This construction phase would last from four to six months.

3.6.1.6 Start Up and Testing

This final phase of construction would involve Targa personnel (i.e., operators, maintenance crews, and instrumentation specialists) working with the equipment vendors to understand how each piece of equipment would operate and function at the Targa Stockton Terminal. Under Targa supervision, the equipment vendors would start up and test the equipment on-site to guarantee that pumps, mixers, gauges, and other operating equipment are functional and meet design standards.

3.6.2 Pipeline Facility Construction

Construction of the pipeline would sequentially include right-of-way clearing, trenching, pipe stringing, welding, backfilling, and testing.

3.6.2.1 Pre-construction

The construction plan would identify specific sites for any equipment fuel storage required for pipeline construction. In general, equipment fuel storage sites would be located to provide adequate setbacks from existing waterbodies (approximately l00 feet minimum) and water wells (approximately 200 feet minimum). Refueling of construction equipment would take place along the ROW using absorbent material to create temporary berms around the equipment. Prior to construction, Targa would develop an Emergency Response Plan and Spill Prevention Plan, or similar documents, as required by law.

3.6.2.2 Right-of-way Clearing

The proposed construction ROW would be cleared and graded to provide for safe and efficient operation of construction equipment and space for temporary storage of spoil material. In general, the width of the ROW clearings would be kept to a practical minimum to avoid undue disturbance of adjacent resources. Brush clearing would be limited to trimming and/or crushing in those areas specified by the City or Port to avoid disturbance of root systems. Where tree clearing is necessary, the ROW boundaries would be flagged, and any specimen trees on the perimeter would be preserved from damage. Where necessary, all brush and other debris would be disposed of in accordance with instructions from the City, Port, or landowner, and all applicable laws and regulations.

3.6.2.3 Trenching

Typically, the installation of pipeline via conventional trenching methods would require the excavation of a 6- to 7-foot-deep trench to maintain a minimum of 3 to 4 feet of cover. The construction work area is anticipated to require a ROW up to 50 feet wide. A typical trench would range from 2 to 3 feet in width. The trench would be excavated using backhoes, ditching machines, and/or track hoes. An exception to the mechanical excavation would be hand digging using air tools to locate buried utilities such as other pipelines, cables, water mains, and sewers. No blasting is anticipated. Fugitive dust emissions at the construction site during earth-moving operations would be controlled as needed by water trucks equipped with spray nozzles.

3.6.2.4 Pipe

Pipe-stringing trucks would be used to transport the pipe in 40- to 80-foot lengths from the shipment point to the pipeline ROW. Trucks would carry the pipe along the ROW, and side-boom tractors would unload the joints of pipe from the stringing trucks and lay them end to end beside the ditch line for future lineup and welding. As required, coated line pipe would be bent in the field by a portable bending machine to fit the contour of the ditch both vertically and horizontally. Construction ROW conditions may require that prefabricated “shop” bends be used when field bending would not be practical. The pipe would be lifted and lowered into the ditch

by an appropriate number of side-boom tractors spaced so that the weight of unsupported pipe would not cause damage to the pipe.

3.6.2.5 Welding and Inspection

All field welding would be performed by qualified welders in accordance with Targa specifications, including API 1104 (Standard for Welding: Pipe Lines and Related Facilities) and the rules and regulations of the U.S. Department of Transportation found in CFR Title 49 (Part 195 for liquid pipelines). One hundred percent of the welds would be radiographically inspected, exceeding the 10 percent inspection requirement found in CFR Title 49, Part 195 (49 CFR Part 195).

3.6.2.6 Backfilling

Native material excavated from the pipeline trench would be reused for trench backfilling to the maximum extent possible. Where native material is not suitable for compaction, import material would be used in the backfilling process. Import backfill material may be soil that has adequate structural integrity to allow for proper compaction, sand/decomposed granite, or base rock material as used in road construction.

3.6.2.7 Testing

Hydrostatic testing would be performed after construction and before start up. Federal regulations (49 CFR Part 195) mandate hydrostatic testing of new petroleum pipelines before placing the line into operation. Pipeline coating would typically be applied at a qualified coating facility before delivery to the construction site. However, field coating (heat-shrink polyethylene sleeves) would be necessary on all field-weld joints made at the site to provide a continuous coating along the pipeline. A detection test would be conducted to locate any coating discontinuities such as thinning or other mechanical damage that could permit moisture to reach the pipe. All coated pipe, including field joints, fittings, and bends, would be tested and repaired, as necessary, before backfilling.

3.6.3 Project Schedule, Workforce, and Construction Hours

Targa anticipates construction could begin in June 2012. Construction would last for approximately 12 to 14 months and would be completed by the second or third quarter of 2013. Project construction would require approximately 75 to 100 temporary workers during peak construction.

3.6.4 Construction Traffic

Approximately 75 to 100 construction personnel would be employed during peak construction activities. Such employment would add approximately 75 automobiles to local-area traffic under peak conditions. Construction activities would occur within a 10-hour workday and would generally take place between the hours of 7 a.m. and 5 p.m. Temporary off-street parking for construction personnel would be located on adjacent property. Targa has received oral

permission from the Port to utilize these facilities and will obtain written authorization prior to the commencement of any such construction and the utilization of the adjacent property. It is not anticipated that excessively oversized loads would be required, except for the delivery of the tank steel and the truck loading-rack skids. An open field adjacent to the proposed lease area would be used for the staging of equipment such as piping, valves, and fittings (*See Figure* 3.6-1: Staging and Storage Area during Construction). The staging area would be temporarily fenced. Approximately two workers would be involved in loading, unloading, and security at the staging area, with about 8 to 10 trucks per day using this staging site during peak construction.

3.7 TERMINAL OPERATIONS

3.7.1 Product Storage

The product storage would consist of 20 storage tanks, including:

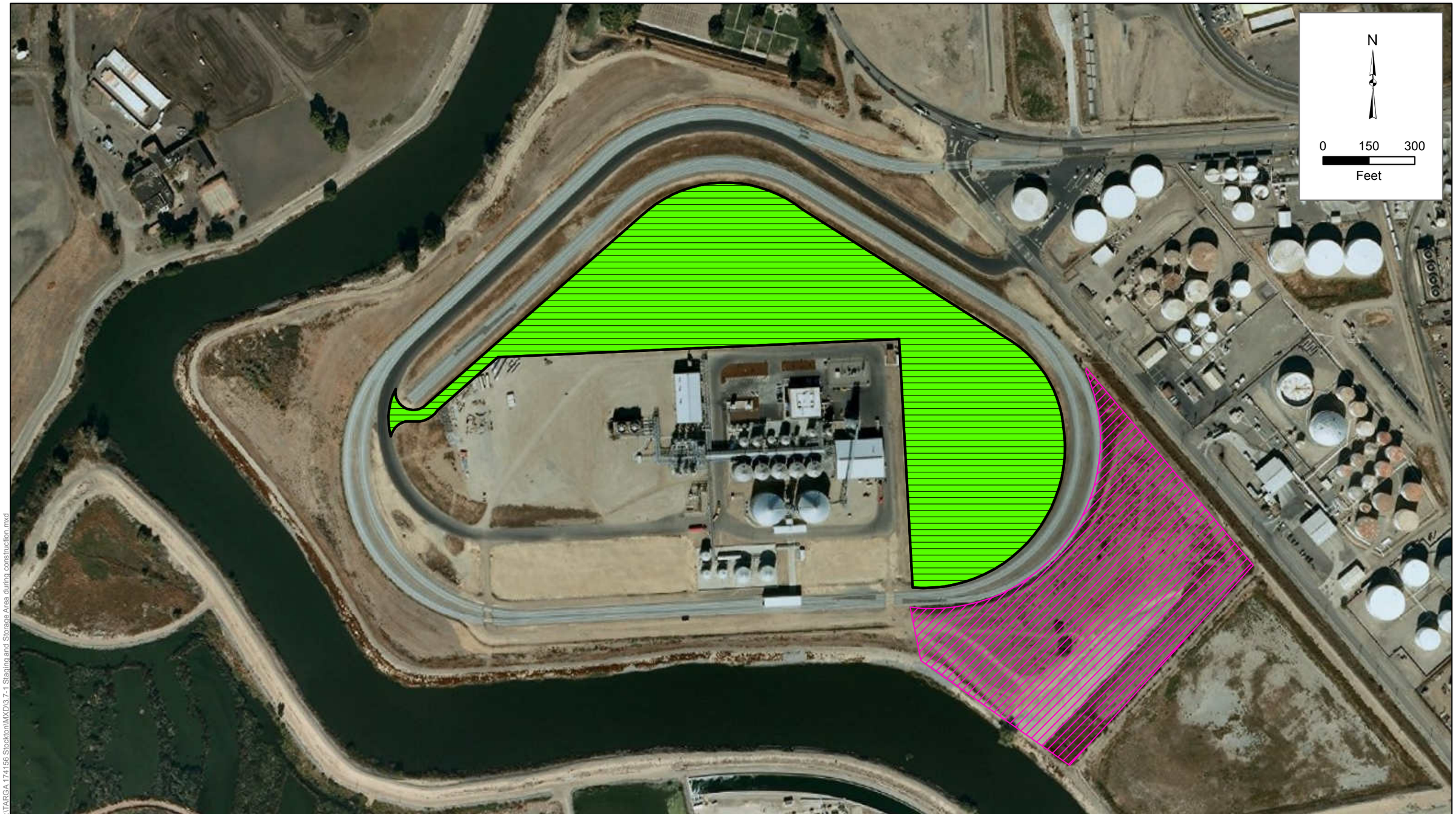
- Four 20,000-bbl ethanol tanks
- one 80,000-bbl ethanol tank
- one 20,000-bbl bio-fuel tank
- one 50,000-bbl swing tank
- two 10,000-bbl additives tanks
- one 10,000-bbl transmix tank
- five 50,000-bbl crude oil tanks
- one 50,000-bbl unleaded regular gasoline tank
- one 50,000-bbl unleaded premium gasoline tank
- one 80,000-bbl low-sulfur diesel tank
- one 80,000-bbl biodiesel tank
- one 80,000-bbl ultra-low-sulfur diesel tank

Refined and blended product from the storage tanks would be shipped from the facility by truck to the local markets. To load the trucks, an eight-lane loading rack is included in the facility design. Each lane is designed to load trucks at 500 gpm to 600 gpm to both the front-loading arms and the rear-loading system. Based on these loading rates, trucks can be loaded in less than 10 minutes (actual loading times). Adjusting for set-up time and connections to the system, a maximum of three trucks per hour per lane, or 4,320 bbls per hour, is estimated. The eight lanes are capable of loading approximately 103,680 bbls per day, or 3,110,400 bbls per month.

The racks would have dedicated pipelines for biodiesel ultra-low-sulfur diesel, and unleaded regular and unleaded premium gasoline. Mid-grade gasoline would be blended at the rack to maximize utilization of the available storage capacity.

Renewable products such as ethanol and bio-fuels would be blended at the rack utilizing a ratio-blend system. Proprietary additives would also be added at the rack to conform to brand requirements for specific customers. One loading arm at one of the lanes would be provided to load neat ethanol and biofuels for distribution to other terminals.

A separate off-loading system would be provided away from the loading rack to off-load trucks with ethanol or bio fuels to storage or off-specification products to transmix.



G:\TARGA 174156 Stockton\MXD\3.7-1 Staging and Storage Area during construction.mxd

Legend

- Project Site TARGA Terminal
- Staging and Storage Area During Construction

STAGING AND STORAGE AREA

DATE: Nov 17, 2011	SCALE: 1:3,600
BY:	FIGURE: 3.6-1

TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**

3.7.2 Ethanol Fuels

The ethanol would be shipped to the proposed lease area by unit train. The unit train would consist of 96 to 100 rail tank cars, each holding approximately 30,000 gallons (715 bbls) of ethanol. The rail off-loading system proposed consists of 12 spots to off-load 12 rail tank cars simultaneously. The system would consist of a header and a surge pump capable of transferring the product from the cars to storage at a rate of 4,000 bph. At this rate, the cars can be emptied in 2 hours and 10 minutes, allowing another hour for connecting and disconnecting the cars and spotting the next set of cars. With the current arrangement, it would take approximately 24 hours to off-load a unit train. Additional parallel track may be added to the existing loop track to allow off-loading of products from twice as many cars, thereby shortening the set-up time and increasing efficiency.

Ethanol from the rail cars would be pumped and metered into one 80,000-bbl bulk tank. From the bulk tank, the ethanol would be transferred to the day tanks. The day tanks would consist of:

- one 50,000-bbl ethanol tank, and
- four 20,000-bbl ethanol tanks.

Ethanol from the day storage tank would be pumped to the rack for blending with gasoline products at the truck rack, or loaded on trucks to be shipped to other terminals. With design throughput of 50,000 barrels per day (bpd), typical product mix indicates approximately 40,000 bpd would be gasoline products. At a 10 percent blend ratio, 4,000 bbls of ethanol would be blended daily. Based on these consumption rates, two unit trains per month would meet the facility's need to blend ethanol. Additional unit trains may be required depending on the volume of ethanol shipped to other terminals for blending.

The rail off-loading system would be designed to accommodate future expansion for loading fuels into rail cars for distribution to other parts of the State by rail. To accomplish this, separate headers would be added to the loading area for each product to be loaded. In addition to the fuel header, a vapor recovery header would be added and routed to the vapor holder for processing through the incinerator. To load products, additional pumps and meters dedicated to the loading operation would be needed to avoid interruption of the truck rack operation while rail cars are being loaded.

3.7.3 Crude Oil

Crude oil from the Bakken Formation in North Dakota would be shipped to the proposed Targa Stockton Terminal by unit train. The unit trains would consist of 96 to 100 rail tank cars each holding approximately 30,000 gallons (715 bbls) of Bakken crude oil. The rail off-loading system is described above in Section 3.7.2.

Crude oil from the rail cars would be pumped and metered into five 50,000-bbl bulk tanks. From the bulk tanks, the crude oil would be transferred to the deep-water channel Berth #9 by the proposed pipeline connection for loading to barges or ships. Barges would transport the crude oil

to refineries located in California, such as Rodeo, Richmond, Benicia, Martinez, or the barges would ship the crude oil to other world markets. Targa anticipates the following crude oil movement based on improvements of the proposed Targa project in the short-term:

- 3 Unit Trains per week of crude oil at 74,000 barrels per Unit Train (BNSF Unit Train Loading ranges between 60,000 and 88,000 bbls) for a total of 222,000 bbls per week.
- 5 barges per week of crude oil at 49,000 barrels per barge.
- All incoming crude oil to Targa Stockton Terminal will be outgoing within one week via marine transport.
- Total monthly tonnage of crude oil moving across Port's dock is 33,846 tons (using a conversion of 6.5 barrels per ton).

3.7.4 Bio Fuels

The bio fuels would be shipped to the facility by rail or truck. The bio fuel rail off-loading system is described above in Section 3.7.2. Each rail tank car would hold approximately 30,000 gallons (715 bbls). The system would consist of a header and a surge pump capable of transferring the product from the cars to storage at a rate of 4,000 bph. At this rate, the cars could be emptied in 2 hours and 10 minutes. The bio fuel would be metered and transferred to one of three 10,000-bbl storage tanks.

Product from the 10,000-bbl storage tank would be pumped to the rack for blending with the diesel products at the truck rack or loaded on trucks neat to be shipped to other terminals. With design throughput of 50,000 bpd, typical product mix indicates approximately 10,000 bpd would be diesel products. At a 20 percent blend ratio, 2,000 bbls of bio fuels would be blended daily. Based on these consumption rates, two 24-car trains per week would meet the facility's need to blend bio diesel. Additional cars may be required depending on the volume of neat (100% bio fuels) bio fuels shipped to other terminals for blending.

3.7.5 Truck Off-loading System

The product off-loading systems would consist of three separate spots similarly designed to receive product from a truck and pump it to storage. The three systems would be designed to handle the following products:

- Bio fuels,
- Ethanol, and
- Off-specification product.

Each of the systems would consist of a vertical can pump, air eliminator, and meter. Product from the trucks would be drained into the vertical can pump and pumped through the air eliminator and the meter before it would be shipped to storage in the bio fuel tanks, ethanol tank, or the off-specification (transmix) tank. The pumping system, designed to pump at 300 bph, would allow transfer of a 100-bbl truck in 20 minutes. The transmix off-loading system would serve a dual purpose designed to off-load trucks or load transmix for transporting to the

refineries for processing. Vapor recovery connections would be incorporated in the off-loading system to capture vapors from transmix loading operations and the air eliminators.

3.8 SUMMARY OF MITIGATION MEASURES

Mitigation measures identified in the 2006 Pacific Ethanol EIR that were applicable to the proposed Targa project would be incorporated into the proposed Targa project to protect the environment, and are summarized below. In addition, project-specific mitigation measures identified to reduce potential impacts to a less-than-significant level that were not called out in the 2006 Pacific Ethanol EIR are outlined below.

3.8.1 Aesthetics (Visual Resources)

3.8.1.1 2006 Pacific Ethanol EIR Mitigation Measures

None recommended

3.8.1.2 Targa Stockton Terminal Project Specific Mitigation Measures

None recommended

3.8.2 Agriculture and Forestry Resources

3.8.2.1 2006 Pacific Ethanol EIR Mitigation Measures

None recommended

3.8.2.2 Targa Stockton Terminal Project Specific Mitigation Measures

None recommended

3.8.3 Air Quality

3.8.3.1 2006 Pacific Ethanol EIR Mitigation Measures

3.3.1 Compliance with measures outlined in Table 3.3-4

Table 3.3-4 Mandatory Control Measures for Construction, Excavation, Extraction, and Other Earthmoving
Activities – Mitigation Measure #3.3-1
A. Pre-Activity:
A1: Pre-water site sufficient to limit Visible Dust Emissions (VDE) to 20% opacity
A2: Phase work to reduce the amount of disturbed surface area at any one time.

B. During Active Operations:
B1: Apply water or chemical/organic stabilizers/suppressants sufficient to limit VDE to 20% opacity

B2: Construct and maintain wind barriers sufficient to limit VDE to 20% opacity. If utilizing wind barriers, control measure B1 above shall also be implemented.

B3: Apply water or chemical/organic stabilizers/suppressants to unpaved haul/access roads and unpaved vehicle/equipment traffic areas sufficient to limit VDE to 20% opacity and meet the conditions of a stabilized unpaved road surface.

C. Temporary Stabilization During Periods Of Inactivity:

C1: Restrict vehicular access to the area

C2: Apply water or chemical/organic stabilizers/suppressants, sufficient to comply with the conditions of a stabilized surface. If an area having 0.5 acres or more of disturbed surface area remains unused for seven or more days, the area must comply with the conditions for a stabilized surface area as defined below:

Stabilized Surface: any disturbed surface area or open bulk material storage pile that is resistant to wind blown fugitive dust emissions. A surface is considered to be stabilized if it meets at least one of the following conditions:

- A visible crust; or
- A threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 centimeters per second or greater; or
- A flat vegetative cover of at least 50 percent that is attached or rooted vegetation; or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind; or
- A standing vegetative cover of at least 30 percent that is attached or rooted vegetation with a predominant vertical orientation;
  Or
- A standing vegetative cover that is attached or rooted vegetation with a predominant vertical orientation that is at least 10 percent and where the TFV is at least 43 centimeters per second when corrected for nonerodible elements; or
- A surface that is greater than or equal to 10 percent of nonerodible elements such as rocks, stones, or hard-packed clumps of soil.

D. Speed Limitations and Posting of Speed Limit Signs

D1: Limit the speed of vehicles traveling on uncontrolled unpaved access/haul roads within construction sites to a maximum of 15 miles per hour.

D2: Post speed limit signs that meet State and Federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance. At a minimum, speed limit signs shall also be posted at least every 500 feet and shall be readable in both directions of travel along uncontrolled unpaved access/haul roads.

E. Wind Generated Fugitive Dust Requirements

E1: Cease outdoor construction, excavation, extraction, and other earthmoving activities that disturb the soil whenever VDE exceeds 20% opacity. Indoor activities such as electrical,

plumbing, dry wall installation, painting, and any other activity that does not cause any disturbances to the soil are not subject to this requirement.
E2: Continue operation of water trucks/devices when outdoor construction excavation, extraction, and other earthmoving activities cease, unless unsafe to do so.

3.3.2 To minimize emissions and thus reduce cumulative impacts, the following shall be implemented:

1. The idling time of all construction equipment used at the site shall not exceed ten minutes.
2. The hours of operation of heavy-duty equipment shall be minimized.
3. All equipment shall be properly tuned and maintained in accord with manufacturer's specification.
4. When feasible, alternative fueled or electrical construction equipment shall be used at the project site.
5. The minimum practical engine size for construction equipment shall be used.
6. When feasible, electric carts or other smaller equipment shall be used at the project site.
7. Gasoline-powered equipment shall be equipped with catalytic converters.

3.3.3 The following measures shall be implemented:

- Use energy efficient building designs including automated control system for heating/air conditioning and energy efficiency, utilize energy-efficient lighting in buildings and use light colored roof materials to reflect heat.

- Purchase low-emission, alternatively-fueled or electrically-driven, maintenance vehicles and equipment.

- Implement a carpool/vanpool program, e.g., carpool ride-matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.

- Coordinate with local transit operators to extend or expand service to the project area.

Note: BACT features being utilized to meet SJVAPCD requirements are outlined in Table 3.3-9. Other features including, but not limited to, CO2 recovery plants, vent filters, centrifugal separators, vapor recovery systems, and tank ultraseals shall be installed and maintained as required by the SJVAPCD (Appendix C – Detailed Project Description) as design and operational features.

3.8.3.2 Targa Stockton Terminal Project Specific Mitigation Measures

AQ-1 Install wheel washers for all exiting trucks, and equipment leaving the site.
AQ-2 Suspend excavation and grading activity when sustained winds exceed 20 mph or when gusts exceed 25 mph.
AQ- 3 Use alternative fuel or catalyst equipped diesel construction equipment.

AQ- 4 Minimize idling time.
AQ- 5 Replace fossil-fueled equipment with electrically driven equivalents when**.**
AQ- 6 Limit or curtail construction activity during periods of high ambient pollution.
AQ-7 Install Internal Floating Roofs (IFR).
AQ-8 Primary and Secondary Roof Seals.
AQ-9 Drain Dry Design.
AQ-10 Drain Dry Vapor Recovery Unit.
AQ-11 Truck Loading Rack Vapor Recovery Unit.
AQ-12 Reduce unnecessary idling usually needed to maintain climate control in the cab of trucks by offering electric power options.
AQ-13 Equip trucks with NOx reduction catalyst systems.
AQ-14 Install efficient pumps to expedite fuel truck loading and unloading.
AQ-15 Implement scheduling strategies such that truck traffic is evenly dispersed throughout the day and avoids "rush hour" times.
AQ-16 Instruct drivers regarding improved acceleration practices, shifting techniques, and route choice.

3.8.4 Biological Resources

3.8.4.1 2006 Pacific Ethanol EIR Mitigation Measures

3.4.1.1 Sensitive Plants: Since there is the potential for federal or state endangered species (palmate-bracted bird's beak and delta button celery) and otherwise sensitive species to occur, Targa shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multi-species Habitat Conservation Plan.

3.4.1.2 Valley Elderberry Longhorn Beetle: USFWS requires that a 100-foot (or wider) buffer zone be established and maintained around both elderberry encroachment into this buffer zone, the project shall contact the San Joaquin Council of Governments to participate in and obtain encroachment authorization through the San Joaquin County Multi-species Habitat Conservation Plan.

3.4.1.3 Western Pond Turtle and Giant Garter Snake: Because of the potential impact to these reptilian species, the project shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multi-species Habitat Conservation Plan.

3.4.1.4 Sensitive Birds: Because of the potential loss of nesting habitat for many birds protected under the Migratory Bird Treaty Act (MBTA) and/or other federal or State laws, the project shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multi-species Habitat Conservation Plan.

3.4.1.5 American Badger: Because of the potential adverse impact to American badgers that may occur on the project site, the project shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multispecies Habitat Conservation Plan.

3.4.6 The habitat on the project site is considered to be low quality. Mitigation measures described above (for biological resources) will serve to reduce the project's incremental contribution to any cumulative impact to a less than significant level.

3.8.4.2 Targa Stockton Terminal Project Specific Mitigation Measures

BIO-1 Conduct pre-construction (three months or less prior to commencement of construction) site survey by professional biologist. Employ required mitigation measures, if any, including obtaining necessary State and Federal permits and segregation/protection of any protected species found within proposed construction areas.

3.8.5 Cultural Resources

3.8.5.1 2006 Pacific Ethanol EIR Mitigation Measures

3.5.1 Pursuant to CEQA Guidelines 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist or paleontologist shall be contacted to assess the significance of the find. If any find is determined to be significant, project proponents and the qualified archaeologist and/or paleontologist would meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards. If the discovery includes human remains, CEQA Guidelines 15064.5 (e)(1) shall be followed, which is as follows:

(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

(1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

(A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
(B) If the coroner determines the remains to be Native American:

1. The coroner shall contact the Native American Heritage Commission within 24 hours.
2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the

human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

(A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.

(B) The descendant identified fails to make a recommendation; or

(C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

3.8.5.2 Targa Stockton Terminal Project Specific Mitigation Measures

None recommended

3.8.6 Geology and Soils

3.8.6.1 2006 Pacific Ethanol EIR Mitigation Measures

None recommended

3.8.6.2 Targa Stockton Terminal Project Specific Mitigation Measures

None recommended

3.8.7 Hazards and Hazardous Materials

3.8.7.1 2006 Pacific Ethanol EIR Mitigation Measures

The following Mitigation Measures (3.7.1.1 and 3.7.1.2) from the 2006 Pacific Ethanol EIR shall be carried out by Targa. Where the Mitigation Measure identifies Pacific Ethanol it will be assumed to be Targa Terminals, LLC.

3.7.1.1 Before construction begins, Pacific Ethanol will submit a Hazardous Materials Business Plan to the Stockton Port District, prepared in accordance with the requirements of the California Business Plan Act. In the business plan, Pacific Ethanol will address health and safety issues pertaining to the fuel storage tanks. The business plan will also identify emergency procedures and an evacuation plan.

Pacific Ethanol will implement the business plan at or before the start of construction. As part of implementation, Pacific Ethanol will ensure that plant employees are familiar with the plan and have ready access to safety equipment and Material Safety Data Sheets (MSDS). These sheets will describe the materials, storage and handling procedures, and emergency (spill or fire)

procedures for on-site hazardous materials. Pacific Ethanol will implement a safety training program for employees working in the project area.

Pacific Ethanol will be inspected by Stockton Office of Emergency Services to determine compliance with the business plan. Site inspections typically include discussions with the plant manager and employees to determine the level of familiarity with the business plan. Facilities will also be inspected to ensure the presence of proper safety equipment and the availability of. Evidence of safety training will be required.

3.7.1.2 Pacific Ethanol will restrict all vehicle and equipment maintenance to a designated area with an impermeable surface. The surface will be designed to block soil and groundwater contamination caused by spills of materials commonly used in equipment maintenance, such as oils, fuels, solvents, and paint.

3.8.7.2 Targa Stockton Terminal Project Specific Mitigation Measures

HM-1 Design facilitieswith impervious surfaces and curbing for vehicular transportation and maintenance.

HM-2 Provide all employees and the Stockton Port District with a hazardous materials business plan that educates employees on handling and shipping of hazardous materials.

HM-3 Design facilities with secondary containment for all Aboveground Storage Tanks (ASTs).

HM-4 Design all ASTs with fixed roofs that will be constructed of stainless steel to limit potential for leakage or spillage.

HM-5 Design all ASTs with under-tank leak detection that will meet the requirements ofAPI 650.

HM-6 Each tank foundation will have a membrane liner, which will be constructed of High Density Polyethylene, thereby ensuring any potential leakage is contained to the maximum extent possible, within the foundation area of the tank.

HM-7 Design site with a buffer/berm area between the site and additional facilities and the San Joaquin River to limit off-site pollution.

HM- 8 Provide MSDS to all employees for instructive and training purposes.

HM- 9 Utilize temporary containment boom while loading/offloading all entering vessels.

HM-10 Construct a six inch curb at Berth #9 to limit off-site pollution.

HM-11 The Targa Stockton Terminal shall limit crude oil deliveries to double-hulled vessels. United States Coast Guard (USCG) regulations will require double-hulled vessels for all areas within the Exclusive Economic Zone of the U.S. starting in 2015. This measure will bar Targa from accepting deliveries from single-hulled vessels at any time after commencement of the Project.

HM-12 Loading arms shall be equipped with USCG-approved quick-release couplings. A crude oil flow control system shall be interlocked at the coupling that will automatically stop flow prior to disconnection.

HM-13 The proposed Targa Stockton Terminal Project will include fire water pumps improvements at Berth #9. Berth #9 will have new fire hydrants, foam tank, foam

monitors, and water monitors to respond and mitigate potential upset. Also, ships and fire boats will be able to interconnect at Berth #9 for firefighting purposes.

HM-14 Employ leak detection (SCADA) for all pipelines to ensure that leaks are discovered, and all flow is shut-off, as quickly as possible.

3.8.8 Hydrology and Water Quality

3.8.8.1 2006 Pacific Ethanol EIR Mitigation Measures

3.8.4 The Port shall establish an annual levee-monitoring and inspection program. The purpose of the program will be to review and, if needed, reinforce the structural integrity of the perimeter levee on an annual basis in accordance with applicable local, state, and federal requirements. A licensed geotechnical or civil engineer shall prepare levee treatments proposed under the program.

3.8.8.2 Targa Stockton Terminal Project Specific Mitigation Measures

WQ-1 Targa and/or contractor to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) and submit to the State Water Resources Control Board (SWRCB) a Notice of Intent to discharge stormwater prior to beginning construction activities. The SWPPP must specify Best Management Practices that would minimize all construction pollutants from contacting stormwater, with the intent of keeping all products of erosion from moving off-site into receiving waters.

WQ-2 Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations).

WQ-3 No fueling shall be done near waterways, near wetlands or immediate floodplain, unless equipment stationed in these locations is not readily relocated, i.e., pumps, and generators. For stationary equipment that must be fueled on-site, containment shall be provided in such a manner that any accidental spill of fuel shall not be able to enter the water or contaminate sediments that may come in contact with water. Any equipment that is readily moved out of the channel shall not be fueled in the channel or immediate floodplain. All fueling done at the job site shall provide containment to the degree that any spill shall be unable to enter the channel or damage river and wetland vegetation.

WQ-4 Targa will prepare a pollutant control plan that specifies logistics and schedule for construction activities that will minimize the potential for erosion and standard practices that include monitoring and maintenance of control measures.

3.8.9 Land Use and Planning

3.8.9.1 2006 Pacific Ethanol EIR Mitigation Measures

None recommended

3.8.9.2 Targa Stockton Terminal Project Specific Mitigation Measures

None recommended

3.8.10 Mineral Resources

3.8.10.1 2006 Pacific Ethanol EIR Mitigation Measures

None recommended

3.8.10.2 Targa Stockton Terminal Project Specific Mitigation Measures

None recommended

3.8.11 Noise

3.8.11.1 2006 Pacific Ethanol EIR Mitigation Measures

3.11.1 1) Construction activities shall be limited to between 6:00 a.m. and 9:00 p.m. If nighttime construction were required, spot noise monitoring would be required to assure that noise levels from construction activities do not exceed 65 Lmax at the property line of the nearest residence. Measures to reduce nighttime construction noise levels may include using noise barriers or reducing the amount of construction activity until noise levels are below the nighttime significance criterion.

2) Construction equipment noise shall be minimized during project construction by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer's specifications) and by shrouding or shielding impact tools. All equipment shall have sound control devices no less effective than those provided by the manufacturer.

3) Material stockpiles and vehicle staging areas shall be located as far as practicable from residences.

3.8.11.2 Targa Stockton Terminal Project Specific Mitigation Measures

NOISE-1 Advise the affected residents and workers in the vicinity of the proposed construction, including the duration and schedule of activities.

NOISE-2 Wherever feasible, erect barriers or shields near construction equipment (e.g., compressors, pneumatic tools, drills, and generators) considered major sources of noise. Barriers and shields effectively employed will reduce noise levels by as much as 15 dB from nearby workers at Pacific Ethanol production facilities.

NOISE-3 Targa will conduct the following document and response to each complaint: attempt to contact the person making the noise complaint within 24 hours, determine source of noise, and implement reasonable measures to reduce noise.

3.8.12 Population and Housing

3.8.12.1 2006 Pacific Ethanol EIR Mitigation Measures

None recommended

3.8.12.2 Targa Stockton Terminal Project Specific Mitigation Measures

None recommended

3.8.13 Public Services

3.8.13.1 2006 Pacific Ethanol EIR Mitigation Measures

None recommended

3.8.13.2 Targa Stockton Terminal Project Specific Mitigation Measures

None recommended

3.8.14 Recreation

3.8.14.1 2006 Pacific Ethanol EIR Mitigation Measures

None recommended

3.8.14.2 Targa Stockton Terminal Project Specific Mitigation Measures

None recommended

3.8.15 Transportation/Traffic

3.8.15.1 2006 Pacific Ethanol EIR Mitigation Measures

3.15.2 - The existing rail line located north of the intersection at W. Washington Street and Navy Drive will be extended south to access the proposed site. With the current configuration of the intersection, the extension of the rail would create new at-grade crossings across each of the streets, for a total of two new crossings. To minimize the number of new crossings, the intersection geometrics will be revised by eliminating the existing southbound through access on Navy Drive, creating only one additional at-grade crossing at W. Washington Street. To improve safety at this proposed new one-track crossing, there will be one standard No. 9A automatic gate type signal with cantilever arm installed for eastbound traffic on W. Washington Street, as well as two standard No. 9 automatic gate type signals installed for westbound traffic on W. Washington Street and northbound traffic on Navy Drive. The signals will have LED lights to improve their visibility to approaching vehicular traffic. There will be 100' medians installed on W. Washington Street on each side of the intersection to deter people from driving around the activated gates. Advance warning signs will be used on all three legs of the intersection and railroad pavement markings will also be used in both directions on W. Washington Street and on Navy Drive to advise people they are approaching a railroad crossing. The new crossing is subject to the review and approval of the California Public Utilities Commission, and subject to any additional requirements for signs or other crossing.

3.8.15.2 Targa Stockton Terminal Project Specific Mitigation Measures

TRAN-1 A traffic control plan will be developed in coordination with the City of Stockton Public Works Department and the Port for all construction in or near public right-of-ways associated with Port roadways and the proposed pipelines.

TRAN-2 Start times and end times of the construction day will be offset from identified peak traffic hours to mitigate traffic congestion on local streets and highways. Construction personnel will typically arrive at the work site around 6:00 a.m., before the morning peak hour (8:00 a.m. to 9:00 a.m.). Construction employees will typically leave between 3:00 p.m. and 4:00 p.m., before the evening peak hour (5:00 p.m. and 6:00 p.m.).

3.8.16 Utilities and Service Systems

3.8.16.1 2006 Pacific Ethanol EIR Mitigation Measures

None recommended

3.8.16.2 Targa Stockton Terminal Project Specific Mitigation Measures

US-1: Employ an approved Solid Waste Diversion and Recycling Plan.

4.0 CONSISTENCY WITH 2006 PACIFIC ETHANOL EIR

Section 21093 of the Public Resources Code encourages Lead Agencies to tier environmental documents to promote development projects by (1) streamlining regulatory procedures; (2) avoiding repetitive discussions of the same issues in successive environmental documents; and (3) ensuring that environmental analysis prepared for later projects which are consistent with previously approved policy, plan, program, or ordinance concentrate upon environmental effects which may be mitigated or avoided in connection with the decision on the later project. To appropriately tier, the proposed Targa project must be consistent with a city's general plan and zoning code (CEQA Guidelines §15152(e)). This section of the Tiered Initial Study will demonstrate the following similarities between the proposed Targa project and the Pacific Ethanol Production and Transshipment Facility (Pacific Ethanol Project) reviewed in 2006 Pacific Ethanol EIR: facilities, construction, capacity, operations, and purpose. Additionally, this section will demonstrate that the proposed Targa project is consistent with the City general plan, land use designation, and zoning code classification of the lease area, Berth #9 and pipeline route.

4.1 SCOPE OF 2006 PACIFIC ETHANOL EIR

4.1.1 General Considerations Reviewed in the 2006 Pacific Ethanol EIR

In 2006, Pacific Ethanol proposed to construct and operate an ethanol production transshipment facility to: respond to the severe shortage of in-state production capacity for vehicle fuel oxygenates, such as ethanol; enhance ethanol shipping capacity at the Port; and provide more efficient handling and transportation of ethanol at the Port. The Pacific Ethanol Plan included the following components and was reviewed for environmental impacts by the 2006 Pacific Ethanol EIR:

- A corn-to-ethanol production plant, designed to produce approximately 60 million gallons of ethanol per year.
- An ethanol transshipment facility for receipt, storage, loading and transport of ethanol to refineries and gasoline distribution centers. Storage facilities included 16 storage tanks of various sizes.
- Offsite rail improvements to accommodate the project's ethanol shipments.

4.1.2 Description of the Pacific Ethanol Project

The project described in the 2006 Pacific Ethanol EIR is located on 99 acres in the Port, west of Navy Drive, north of West Scotts Avenue, adjacent to the San Joaquin River (*See Figure* 4.1-1: Pacific Ethanol CEQA Study Area and Targa Project Area.) The 2006 Pacific Ethanol EIR reviewed the proposed development at the lease area, which included the following building improvements: a processing building, a grain unloading building, a grain milling structure, a control room and laboratory, a fermentation building, a maintenance building, an administration building, and a wet grain storage; and operates 24 hours per day, 7 days per week.

In addition to the aforementioned building improvements, Pacific Ethanol included plans to construct and operate a transshipment and storage facility which was scheduled to be located on the northwest portion of the 99-acre project site, adjacent to the production facility (*See Figure* 4.1-1: Comparison of Site Plans - Pacific Ethanol Conceptual Layout from 2006 Pacific Ethanol EIR and Targa Site Plan Overlay). The Pacific Ethanol transshipment facility would have provided efficient transportation and handling of ethanol by replacing a 15-car unit (railcar) train with a dedicated 100-car unit train (ethanol delivery only). The addition of this transshipment facility would have greatly increased the capacity and efficiency of the Pacific Ethanol operations. Furthermore, the improved delivery system would "reduce the time required to unload and marshal ethanol rail cars in the Port, and result in a significant reduction in annual locomotive air emissions." (2006 Pacific Ethanol EIR, page 2-4) Estimated annual operating parameters of the transshipment facility included:

- Receiving ethanol in railcars (32 incoming 100-car unit trains) and from the ethanol production facility;
- Increasing temporary ethanol storage;
- Loading ethanol into tank trucks for transportation to out-of-area refineries;
- Increasing outgoing trucks; and
- Increasing intra-port shipment by 10 percent.

Pacific Ethanol planned for storage of ethanol on the lease area with the development of 18 storage tanks of various sizes ranging from 10,000 to 55,000 bbls.

In 2008, Pacific Ethanol completed the construction of the corn-to-ethanol production plant and the offsite rail improvements but did not construct the transshipment and storage facilities (the transshipment and storage facilities would have encompassed the land which Targa is seeking to lease from the Port for the proposed Targa project). Additionally, Pacific Ethanol proposed the installation of a 60 kilovolt (kV) power line which was discussed in an Addendum to the 2006 Pacific Ethanol EIR (published in 2008). The 60 kV line began at the existing Cogeneration National Tap 60 kV line on Washington Street and extended west 2,100 feet on the south side of Washington Street to the intersection of Washington Street and Navy Drive. Once on Navy Drive the 60 kV line would extend 750 feet before heading west to Pacific Ethanol's substation. The Port, in its review of the proposed power line, determined that such

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Legend

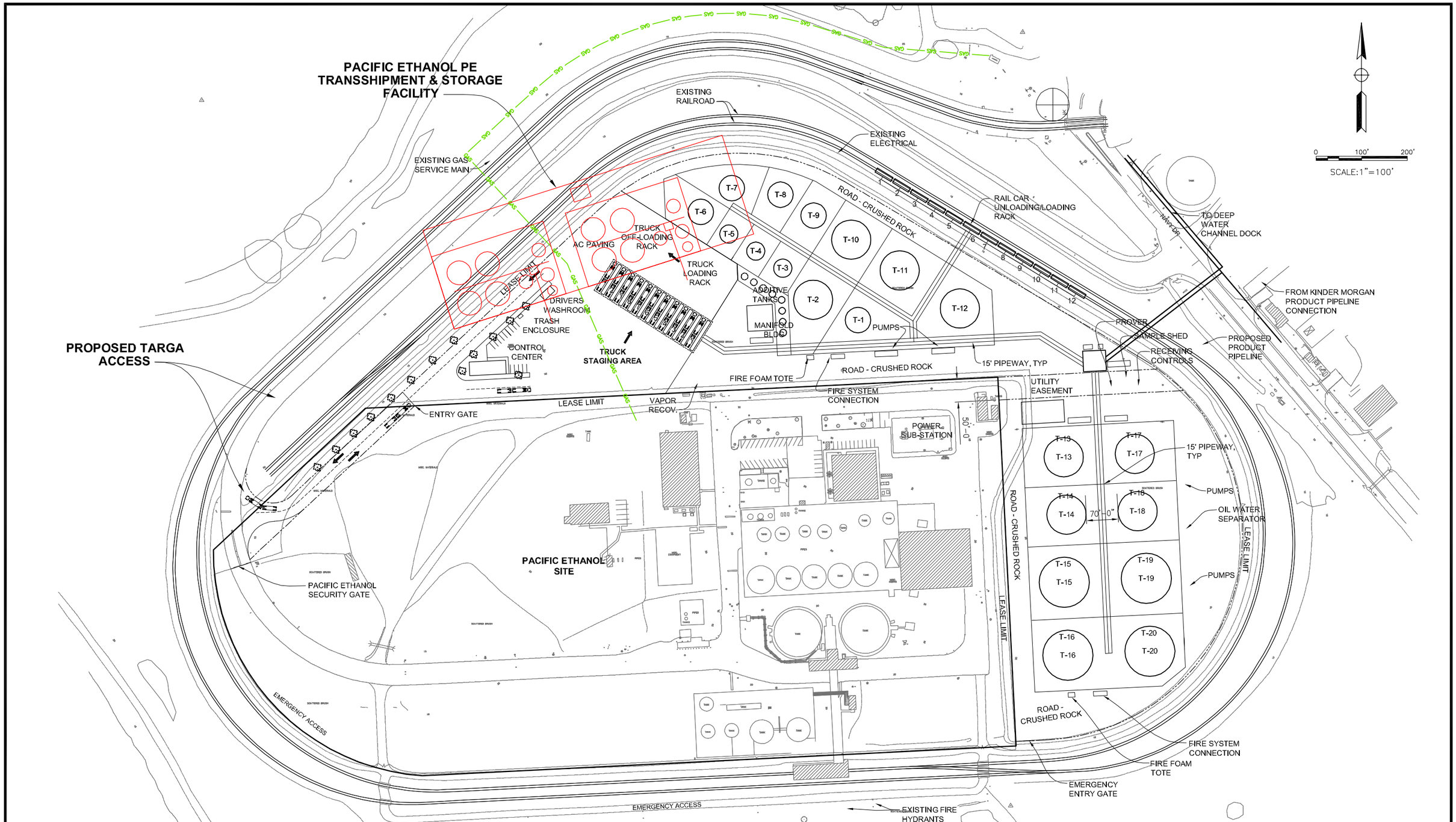
- TARGA Project Area
- Pacific Ethanol CEQA Review Area

PACIFIC ETHANOL CEQA STUDY AREA AND TARGA PROJECT AREA

DATE: Nov 17, 2011	SCALE: 1:10,000
BY:	FIGURE: 4.1-1

TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**



REV.	DESCRIPTION	BY	APP.	CHKD

COMPARISON OF SITE PLANS

DATE:

SCALE:

BY:

FIGURE: 4.1-2

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

changes would not "trigger preparation of a subsequent [Environmental Impact Report (EIR)] because the new facilities would be located within existing ROW and would not create any new or additional significant impacts that were not discussed in the certified Final EIR (2008 Addendum, page 1-6)."

In short, the 2006 Pacific Ethanol EIR (and its 2008 Addendum) included discussions regarding:

- a 99-acre project site for the purpose of increasing ethanol and gasoline production, storage, and shipment;
- increased on-site rail capacity;
- increased on-site trucking capacity;
- increased on-site storage capacity;
- increased incoming shipments;
- potential for on-site expansion; and
- increased ethanol shipment for the Port as a whole.

The 2008 Addendum also discussed:

- increased power capacity; and
- reviewed nearby boundaries, encroachments, and ROW to allow Pacific Ethanol to lay conduit for additional utilities.

As discussed in the 2006 Pacific Ethanol EIR and the 2008 Addendum, each phase or element of Pacific Ethanol's Project have demonstrated increased productivity in the Port as a whole. The proposed Targa project would result in similar increases and would not conflict with the previously-disclosed impacts in the 2006 Pacific Ethanol EIR or the City's general plan land use designation and zoning code classification for the proposed lease area, Berth #9 and pipeline route.

4.2 SCOPE OF THE PROPOSED TARGA PROJECT

Targa is proposing to construct and operate a terminalling and storage facility that would operate on approximately 19+/- acres of the approximately 99-acre site assessed in the 2006 Pacific Ethanol EIR. The proposed Targa project would be located immediately north of the Pacific Ethanol facility and would be wholly confined within the area encircled by the Pacific Ethanol corn unit train rail spur.

Targa would develop 20 storage tanks for various products, including varied biodiesel and ethanol blends of transportation fuels, and other renewable fuels to meet the requirements of California's Global Warming Solutions Act, Assembly Bill (AB 32). The proposed facility would possess a total storage capacity of 850,000 barrels. The proposed Targa Stockton Terminal would ship (internally and externally) various products by tankers, barge, product pipeline, truck, and rail, as was proposed by Pacific Ethanol in the 2006 Pacific Ethanol EIR. Upon commencing operations at the facility, Targa hopes to operate roughly 300 truck shipments

per day, allowing the Targa Stockton Terminal a ground shipping throughput of 55,000 barrels a day. The Targa Stockton Terminal has the ability to process a maximum of 576 daily truck shipments per day, which would allow a total throughput by trucking of 132,613 barrels a day and would operate on a 23 hours per day schedule, allowing one hour per day for maintenance purposes. Lastly, Targa has proposed a product delivery pipeline along Washington Street and Navy Drive, to ship product to and from Berth #9 to allow marine transport. The Pacific Ethanol plan also conceived of this product pipeline connection and provided a conduit under the railroad tracks for such future connections.

4.3 SIMILARITIES OF THE PROJECTS

To demonstrate the similarities between the proposed Targa project and the approved Pacific Ethanol Project, this section compares the existing and proposed land uses, and proposed operations of both projects.

4.3.1 Land Uses

Pacific Ethanol has developed approximately 30 acres of the 99 acre site, with ethanol production facilities and some limited rail facilities to accommodate corn unit trains. Pacific Ethanol has not developed to date the transshipment facility, storage facilities, nor loading and transport facilities for ethanol as proposed and evaluated in the 2006 Pacific Ethanol EIR. The proposed Targa project will develop the contemplated and previously approved portion of the Pacific Ethanol Project regarding transshipment facility, storage facilities, loading and transport facilities to handle ethanol and other petroleum products.

Targa has requested to lease from the Port approximately 19+/- acres encompassed within the 99 acre Pacific Ethanol project site analyzed in the 2006 Pacific Ethanol EIR, through a 75 to 80-year term lease. Targa's development of this portion of the original 99-acre project site will be consistent with Pacific Ethanol's plans contemplated in the 2006 Pacific Ethanol EIR of transshipment facility, storage, loading and transport of ethanol and other petroleum products. The proposed Targa project would complement Pacific Ethanol's current operations as Targa and Pacific Ethanol would share certain infrastructure and Targa would provide needed storage capacity to accommodate ethanol production from Pacific Ethanol operations. The proposed Targa project provides the needed tank storage capacity to allow Pacific Ethanol to operate competitively by accommodating routine operations such as planned turnarounds, and unplanned events such as shipment delays, power failures, weather problems, and unit outages.

As such, Targa's request is not to expand on the original 99 acres proposed for development by Pacific Ethanol and reviewed in the 2006 Pacific Ethanol EIR; but rather, Targa has sought to utilize a small portion of the previously approved 99-acre project site (Targa would be using less than one-fifth of the previously approved project site). Because the Targa lease area falls within the original 99 acre project site, the cumulative build out between Targa and Pacific Ethanol is just under 50 acres, or half of the total 99 acres of development approved in the 2006 Pacific Ethanol EIR. The two projects would share infrastructure (e.g., rail, utilities, and access road) and have similar potential impacts. Such potential impacts were reviewed in the 2006 Pacific

Ethanol EIR, which included improvements being proposed by Targa, thus the proposed Targa project falls within the purview of the 2006 Pacific Ethanol EIR and approved Pacific Ethanol Plan of Development.

4.3.2 Operations

The operating schedule proposed for the Targa Stockton Terminal project is similar to that which was proposed for the 2006 Pacific Ethanol Project. Pacific Ethanol proposed a 24-hour a day operating schedule and the proposed Targa project incorporates a 23-hour a day operating schedule (with 1 hour scheduled for maintenance activities). The significance of the operating schedules is seen when viewed in conjunction with the increased capacity of the Pacific Ethanol terminal. As discussed above, Pacific Ethanol proposed to increase the capacity and output of its facility in 2006, while decreasing the amount of ethanol imported, allowing the facility to maximize its operations, making the two facilities much more similar. Furthermore, in review of the 2006 Pacific Ethanol EIR, the Port determined that such increases would not have significant and cumulative environmental effects. Because the operations (schedule and capacity) and purposes of the Pacific Ethanol project and the proposed Targa project are coordinated to provide support and business to one another as contemplated in the 2006 Pacific Ethanol EIR, it should be determined appropriate to allow the proposed Targa project to tier from the 2006 Pacific Ethanol EIR. Essentially, the proposed Targa project will shift the development, management, and operations of the previously approved transshipment and storage facilities within the proposed lease area from Pacific Ethanol to Targa.

4.4 ADDITIONAL PROJECT CONSIDERATIONS

The proposed Targa project would involve two project components not contained in the 2006 Pacific Ethanol EIR: modifications to Berth #9 and construction of pipeline supply connections, neither of which will result in significant and cumulative impacts. Each issue will receive individual treatment below.

4.4.1 Berth #9 Modifications

Targa is proposing to make improvements to existing Berth #9 at the deep water channel berth facilities. Suggested improvements would include: mooring dolphins with quick release hooks and power capstans; a mooring and fendering system; offloading and loading arms; an electric motor driven derrick cargo crane; a davit crane (boat lowering crane); 4,000 feet of spill boom storage; low-impact area lighting systems; marine structure cathodic protection corrosion prevention systems; navigational lighting systems; cable trays, wiring, instrumentation and controls; and grounding systems. To provide environmental protection, all deck areas on Berth #9 that would be subject to potential leaks, spills, drips from equipment, pipe flanges, pumps, loading arms, and valves, would be contained within a 6-inch high curbed area. Rainwater falling into this area would be collected and drained to a sump. The implementation of these modifications and improvements, in conjunction with the implementation of appropriate environmental protection measures will not individually, or cumulatively, rise to the level of creating additional significant environmental impacts. In addition, Berth #9 is an existing

operating berth, and ship movements will be scheduled and managed by the Port to be accommodated at the already operating berth. As such, although the modification and improvements of Berth #9 were not considered in the 2006 Pacific Ethanol EIR, proposed berth improvements will not require an additional EIR.

4.4.2 Product Pipeline Delivery

Targa plans on constructing two product pipelines within existing public ROW to connect to the Kinder-Morgan petroleum product pipeline, and Berth #9 to the proposed terminalling and storage facilities. The Kinder-Morgan pipeline is located along Navy Drive, adjacent to the northern border of the proposed lease area. This section of Navy Drive was previously reviewed by the Port in the 2008 Addendum to the 2006 Pacific Ethanol EIR for the construction of the 60 kV utility lines.

The pipeline connecting Berth #9 to the tank farm will be constructed within Port Road 5 starting at Berth #9 going south to Port Road 13 and continuing south to West Washington Street, where the pipeline will turn west on West Washington Street to Navy Drive and then proceed to the tank farm. Like the 60 kV line reviewed in the 2008 EIR Addendum, described in this document on Page 1-5, the proposed pipeline will extend west approximately 2,100 feet on the south side of West Washington Street to the intersection of Washington Street and Navy Drive. Because Targa has proposed to place this pipeline in the same path previously reviewed for underground utility connections, it logically follows that the proposed product pipeline corridor has already been considered under the 2008 Addendum. As such, the product pipeline delivery system should not be found inconsistent with the previously completed EIR (or its addendum) as it will not have significant environmental impacts and because it will run within the public ROW already considered in the 2006 Pacific Ethanol EIR and 2008 Addendum to the EIR.

With the exception of the berthing modifications and improvements, the terminalling and storage facilities proposed by Targa are encompassed within the 99 acres assessed in the 2006 Pacific Ethanol EIR. Additionally, the proposed product pipelines will be located in areas assessed for utility connections in the 2008 Addendum and existing public ROW. The modifications to Berth #9 and connection of product pipelines are portions of the proposed Targa project not reviewed for environmental impacts in the 2006 Pacific Ethanol EIR. The majority of the pipeline connections will run the course of the 60 kV power line reviewed and were determined to have no impact in the 2008 Addendum. As such, the only portion of the pipeline which has not been reviewed for impact is that portion which will run the course of Port Roads 5 and 13.

Therefore, because the proposed Targa project would be consistent with the scope of the ethanol production and transshipment facility described in the 2006 Pacific Ethanol EIR and the purpose and scope of the Port and the construction of these facilities will not likely cause significant environmental impacts, an EIR addressing the berthing modifications and the product pipeline connection is not required.

4.5 CONSISTENCY WITH CITY GENERAL PLAN, CITY ZONING, AND STATE ENTERPRISE ZONE

The proposed Targa project is consistent with the City of Stockton General Plan Land Use Designation and Zoning Code Classification. Considerations regarding these plans will be made below.

4.5.1 Zoning Considerations

The zoning classification for the proposed lease area, Berth #9 and the pipeline route is Port District (PT), Stockton Muni. Code § 16.16.020 PT zoning is applied to areas of the City that are operated by "port districts" as formed under the Harbors and Navigation Code Section 6210 et seq., for the operation of port facilities, including wharves, dockage, warehousing, and related port facilities. The PT zoning district is consistent with the industrial land use designation of the General Plan and the Rough and Ready Island Development Plan for the Stockton Port District (as applicable). The development and operations of the proposed terminalling and storage facilities are designated a permitted use within the zoning classification. No discretionary approval is required under the zoning code to allow the development of the proposed Targa project.

4.5.1 General Plan Considerations

The proposed lease area, Berth #9, and pipeline route is designated as Industrial by the City of Stockton 2035 General Plan. The industrial designation allows offices, retail sales and service, public and quasi-public uses, and other related and compatible uses. Uses with nuisance or hazardous characteristics are allowed. No residential uses are permitted in this designation. The building intensity standard is a maximum Floor Area Ratio (FAR) of 0.60. The general plan includes considerations limiting population/housing and uses allowable in industrial designations.

The City has developed land use goals, under the auspice of the Stockton 2035 General Plan, which are divided into eight separate sections known as LU1-LU8. LU5 is the goal applicable to the proposed Targa project as it discusses the purpose of the City's Industrial development goals. The primary industrial land use goal is "to encourage, facilitate, and assist the location of new industry, and the expansion of existing industry."[1] Furthermore, the City's goals seek to "[cluster]" industrial uses within lands previously zoned industrial. Lastly, the City's final zoning goal applicable to the proposed Targa project is that of "enhanc[ing] the employment base of the City."[2] Because the project is being undertaken in an area which is already zoned industrial and would be located on land which will support the exact same activities, the proposed Targa project adequately fulfills the first two goals. Furthermore, because the proposed Targa project would enhance employment, the proposed Targa project meets all LU5 objectives.

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[1] Stockton Gen. Plan 2035 Goals and Policies Report, December 2007. Available at: http://www.stocktongov.com/files/GoalPolicyReport.pdf. Last visited: October 13, 2011.

[2] *Id.*

4.5.2 Previous Land Use Decision

The Stockton Port District in 2006 approved Pacific Ethanol's proposed development plans which included construction and operation of an ethanol transshipment facility for receipt, storage, loading and transport of ethanol to refineries and gasoline distribution centers. The proposed Targa project is similar and consistent with the design intent of the previous terminal facility approval granted by the Board of Commissioners to Pacific Ethanol.

4.5.3 Enterprise Zone Designation of Lease Area, Berth #9 & Pipeline Route

The lease area, Berth #9 and pipeline route of the proposed Targa project is located within a California Enterprise Zone which targets economically-distressed areas using special State and local incentives to promote business expansion and job creation. The San Joaquin County Enterprise Zone is a partnership between the County and the cities of Stockton, Lodi, Manteca, Lathrop and Tracy.

The proposed Targa project's location in the San Joaquin County Enterprise Zone entitles the Targa proposed terminalling and storage development to a number of benefits from the State and local governments, but most importantly the Enterprise Zone designation entitles the proposed Targa project to use existing EIRs adopted for projects within Enterprise Zone areas, such as the 2006 Pacific Ethanol EIR.

4.6 SIGNIFICANT AND CUMULATIVE EFFECTS

As discussed above, the proposed Targa project would involve two components (Berth #9 Improvements & Product Pipeline Connections) not contained in the 2006 Pacific Ethanol EIR. However, because these components are proposed to be located within the Stockton Port District on an existing operating berth and property currently occupied by industrial users for marine shipments and transportation, it is determined that the proposed modifications and improvements of Berth #9 will not have any significant nor cumulative negative environmental effects. Furthermore, because the product pipeline will be within existing public ROW and a majority of the pipeline route was previously reviewed by the 2008 Addendum and found to have no significant impacts, no conditions have been found that would result in a significant impact associated with the construction of the product pipeline. Any such effects will be discussed in greater detail in Section 7 of this document.

The 2006 Pacific Ethanol EIR contains cumulative analyses for the projected build-out of the Pacific Ethanol improvements to be located on the 99-acre project site. The cumulative context in the 2006 Pacific Ethanol EIR varies depending on the nature of the issue being studied. Cumulative effects are classified either by natural resources boundaries (i.e., biological resources, hydrology, geology, and air quality); or by population growth and associated development within the Stockton Port District (i.e., public and community services, transportation, hazardous materials, noise, aesthetics, and cultural resources). The cumulative impact analysis for each environmental issue in the 2006 Pacific Ethanol EIR is defined based on

the cumulative context that best defines the geographic extent of the possible cumulative effect (see Chapter 5, Cumulative Impacts, of the 2006 Pacific Ethanol EIR).

The proposed Targa project involves construction, and operations of the already approved and evaluated transshipment and storage facilities proposed to be developed by Pacific Ethanol within the footprint of development delineated in the 2006 Pacific Ethanol EIR. As discussed above, the proposed Targa project is within the scope of growth and population anticipated in the 2006 Pacific Ethanol EIR. Therefore, the proposed Targa project would implement that portion of the Pacific Ethanol project known as the Transshipment and Storage Facility and would incrementally contribute to, but not exceed, the cumulative impact evaluation presented in the 2006 Pacific Ethanol EIR.

The technical discussions in the Tiered Initial Study Environmental Checklist, concludes that the proposed Targa project would:

- incrementally contribute to, but not exceed, significant and unavoidable impacts identified in the 2006 Pacific Ethanol EIR related to construction and operational air pollutants, criteria air emissions, and toxic air emissions; and

- incrementally contribute to, but not exceed, less-than-significant cumulative impacts identified in the 2006 Pacific Ethanol EIR related to carbon monoxide emissions.

The Port and the City have considered an approach to accommodate future growth and industrial development of the Port with the implementation of the Port Industrial Redevelopment Project Area, Restated Redevelopment Plan for the Waterfront Merger Redevelopment Project Area, Enterprise Zone Designation, and the 2035 General Plan. To the extent that future growth is not considered significant in the Plans outlined above for the orderly development of the Port and/or associated physical changes to the environment have not been considered in the 2006 Pacific Ethanol EIR, additional environmental impacts could conceivably occur. However, analysis of any such impacts would be speculative because current planning efforts are preliminary in nature and constitute feasibility and planning studies, as defined in the California Environmental Quality Act Guidelines Section 15262.

5.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "potentially significant impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Green House Gas	☐ Hazards and Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

Based on the analysis presented in this Tiered Initial Study, it has been determined that for all resource areas, the proposed Targa project would not result in any significant impacts that cannot be mitigated to a less-than-significant level or are not sufficiently addressed by the 2006 Pacific Ethanol EIR and previously adopted Overriding Considerations for cumulative Air Quality Impacts. This Tiered Initial Study concludes that the project may incrementally contribute to, but not exceed, certain significant cumulative impacts previously identified in the 2006 Pacific Ethanol EIR, and that for such impacts, no new mitigation measures, other than those previously identified in the 2006 Pacific Ethanol EIR, are required. In addition, the project may result in potentially significant impacts not previously identified in the 2006 Pacific Ethanol EIR, but proposed Targa project-specific mitigation measures would reduce the effect of such impacts to a level that no significant impacts would occur. On the basis of the Tiered Initial Study and implementation of all proposed Targa project-specific mitigation measures, there is no substantial evidence that the project as mitigated may have any more effect on the environment than that which was already identified in the 2006 Pacific Ethanol EIR. The proposed Mitigated Negative Declaration is presented in Appendix A of this document.

6.0 DETERMINATION

Pursuant to Sections 15152 of the CEQA Guidelines, this Tiered Initial Study has been prepared to evaluate the potential environmental impacts of the proposed Targa project in relation to the project environmental analysis of the Transshipment and Storage Phase of development contained in the 2006 Pacific Ethanol EIR. On the basis of the evaluation that follows, I find that:

☐ The proposed project is exempt from CEQA pursuant to the general exemption (CEQA Guidelines, 15061(b)(3)), a statutory exemption, and/or a categorical exemption, and that if a categorical exemption, none of the exceptions to the exemption apply. A NOTICE OF EXEMPTION will be prepared.

☐ Pursuant to Section 15168(c)(2) of the CEQA Guidelines, the proposed project may incrementally contribute to, but will not exceed, the significant environmental impacts previously identified in the 2006 Pacific Ethanol EIR, and the project will otherwise result in no new significant environmental impacts. Further, having been avoided or mitigated pursuant to the 2006 Pacific Ethanol EIR, no new mitigation measures, other than those previously identified in the 2006 Pacific Ethanol EIR, are required. FINDINGS consistent with this determination will be prepared.

☐ The proposed project may incrementally contribute to, but will not exceed, significant environmental impacts previously identified in the 2006 Pacific Ethanol EIR. Further, the proposed project will result in no new significant impacts other than those previously identified in the 2006 Pacific Ethanol EIR. However, the project will have environmental impacts not previously addressed in the 2006 Pacific Ethanol EIR, but there is no substantial evidence that such impacts may have a significant impact on the environment. No new mitigation measures, other than those previously identified in the 2006 Pacific Ethanol EIR, are required. A NEGATIVE DECLARATION will be prepared.

☑ The proposed project may incrementally contribute to, but not exceed, certain significant cumulative impacts previously identified in the 2006 Pacific Ethanol EIR, and that for such impacts, no new mitigation measures, other than those previously identified in the 2006 Pacific Ethanol EIR, are required. In addition, the project may result in potentially significant impacts not previously identified in the 2006 Pacific Ethanol EIR, but proposed project specific mitigation measures would reduce the effect of such impacts to a point that clearly no significant impacts would occur. On the basis of the Tiered Initial Study and implementation of all proposed project specific mitigation measures, there is no substantial evidence that the project as mitigated may have a significant effect on the environment. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ The proposed project may incrementally contribute to, but will not exceed, certain significant environmental impacts previously identified in the 2006 Pacific Ethanol EIR. For such impacts, no new mitigation measures, other than those previously identified in the 2006 Pacific Ethanol EIR, are required and are incorporated by reference. Further, there is substantial evidence that the project may result in a significant environmental impact that was not previously identified in the 2006 Pacific Ethanol EIR, and/or will exacerbate a significant environmental impact previously identified in the 2006 Pacific Ethanol EIR. An Environmental Impact Report will be prepared that addresses the new impacts not previously identified in the 2006 Pacific Ethanol EIR.

Signature Jason Cashman, Environmental Specialist, Stockton Port District	February 28, 2012 Date

7.0 DISCUSSION OF ENVIRONMENTAL SETTING, POTENTIAL IMPACTS, AND MITIGATION MEASURES

The Environmental Checklist is used to assist in evaluating the potential environmental impacts of the proposed Targa project with respect to the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR). The Environmental Checklist identifies potential project effects as follows:

(1) **Potentially Significant Impact**: An effect that is substantial based on significance criteria. If there are one or more "potentially significant impact" entries in the Environmental Checklist, an EIR is required.

(2) **Less than significant with Mitigation Incorporated**: An effect that, with the incorporation of mitigation measures, is reduced from a "potentially significant impact" to a "less than significant impact." The Tiered Initial Study includes mitigation measures and briefly explains how these measures reduce the associated effect to a less-than-significant level.

(3) **Impact for which the 2006 Pacific Ethanol EIR is Sufficient**: An effect that was adequately addressed and mitigated to the extent feasible in the 2006 Pacific Ethanol EIR.

(4) **Less than Significant Impact**: No significant impacts will result.

(5) **No Impact**: The project will not create an impact in the category.

Environmental impacts of the proposed Targa project that are determined in this Tiered Initial Study to have been adequately analyzed and mitigated in the 2006 Pacific Ethanol EIR generally fall into one of two general categories: (1) impacts that were determined to be less than significant after the implementation of mitigation measures identified in the 2006 Pacific Ethanol EIR, and (2) impacts considered significant and unavoidable in the 2006 Pacific Ethanol EIR. No further analysis is required for impacts within the first category since the 2006 Pacific Ethanol EIR and associated mitigation measures would reduce project-level impacts to a less-than-significant level. Impacts identified as significant and unavoidable in the 2006 Pacific Ethanol EIR include: (a) impacts identified as significant for some specific aspects of the Pacific Ethanol Project, but which would not be significant in relation to the proposed Targa project; and (b) impacts that are significant on a cumulative level but not at a project level, for which the 2006 Pacific Ethanol EIR fully addresses the cumulative impacts. The following resource discussions provide specific reasons for concluding that the 2006 Pacific Ethanol EIR adequately analyzes the impacts of the proposed Targa project or that added mitigation measures specific to the proposed Targa project would reduce all impacts to less-than-significant levels.

Included in each discussion is a summary of relevant setting information and 2006 Pacific Ethanol EIR impacts and mitigation measures that apply to the proposed Targa project.

Substantiation and clarification for each Environmental Checklist response is also provided in the following resource discussions.

CEQA provides the following guidance for evaluation of impacts:

(1) A brief explanation is included for all answers except "no impact" answers that are adequately supported by the background information sources a lead agency cites in the parentheses following each question. A "no impact" answer is adequately supported if the referenced information sources show that the impact does not apply to the project (e.g., the project falls outside a fault rupture zone). A "no impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

(2) All answers must take into account the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

(3) "Potentially significant impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "potentially significant impact" entries when the determination is made, an EIR is required.

(4) "Less than significant with mitigation incorporated" applies where the incorporation of mitigation measures has reduced an effect from a "potentially significant impact" to a "less than significant impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level.

(5) Earlier analysis may be used where, pursuant to the tiered, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration (Section 15063 (c)(3)(d)).

(6) Lead agencies are encouraged to incorporate into the Environmental Checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7.1 AESTHETICS (VISUAL RESOURCES)

The aesthetics section addresses the potential effects of the proposed Targa project on aesthetics (visual resources). This section describes existing regional visual character, visual resources, views, of the lease area, Berth #9, and the pipeline route, from important vantage points, and the changes in these views that would occur with the implementation of the proposed Targa project. Visual resources are the natural and cultural features of the landscape that can be seen and that contribute to the public's appreciative enjoyment of the environment. Visual resource or aesthetic impacts are generally defined in terms of a project's physical characteristics and potential visibility, and the extent to which the project's presence would change the perceived visual character and quality of the environment in which it would be located.

This section describes the visual resources setting of the project and the appearance of the proposed Targa project after construction, and analyzes the potential effects of the project on visual resources in terms of changes to the viewshed from Key Observation Points (KOPs) near the project. KOPs are strategic viewing points where there are significant numbers of public (sensitive) viewers and from which there would be a clear view of the project after construction. This analysis considers the existing visual setting and its visual character and scenic quality, the potential sensitivity of likely project viewers to changes in the viewshed, and the visibility or dominance of the project after construction.

7.1.1 Background

7.1.1.1 Regulatory Context

Federal Regulations

No federal regulations apply to the proposed Targa project's visual resource issues.

State Regulations

California Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The State laws governing the Scenic Highway Program are found in the Streets and Highways Code Section 260, et seq. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code. A list of California's scenic highways and a map showing their locations may be obtained from the California Department of Transportation's Scenic Highway Coordinators. There are no designated State scenic highways in the immediate vicinity of the proposed Targa project.

Local Regulations

City of Stockton 2035 General Plan

The Stockton 2035 General Plan sets out policies for land use, circulation, community facilities, and environmental resource management for the City. It includes a chapter that specifically addresses urban design issues.

7.1.1.2 Required Permits and Approvals

No visual resource permits are required for the proposed Targa project.

7.1.2 Methodology

A qualitative assessment of the existing and future visual environment within the lease area, Berth #9, and the pipeline route, was conducted to determine whether there would be significant impacts resulting from the construction of the project. Visual elements of the proposed Targa project were evaluated in relation to the existing visual character in the vicinity of the project. Potential KOPs were reviewed within the lease area, Berth #9, pipeline route, and viewer sensitivities were identified.

7.1.2.1 Viewer Sensitivity

Visual perception is the basic act of seeing or recognizing an object. Physical conditions that affect perception and ability to discern details are observer distance and speed. As observer distance increases, the ability to see the details of an object decreases. As observer speed increases, the sharpness of lateral vision decreases and the observer tends to focus along the line of travel. Vehicle passengers are able to focus on the passing landscape for longer periods than the driver. Viewer groups are differentiated by the physical factors that modify perception.

7.1.2.2 Viewer Response

Changes to the visual environment are subjectively evaluated by the affected viewers. To understand and predict viewer response to the changes resulting from project construction, it is necessary to make assumptions about the viewers who may see the project and the aspects of the visual environment to which they are likely to respond.

7.1.3 Environmental Setting

7.1.3.1 Regional Overview

The City is located in a historic floodplain adjacent to the San Joaquin River. The major natural visual characteristics of the area include a flat topography and scattered sloughs, creeks, rivers, levees, and riparian vegetation located along the various waterways. Distant views of the coastal mountain ranges (including Mount Diablo) are available throughout the region.

The proposed Targa project is located in the eastern area of the Port adjacent to the Pacific Ethanol Plant. The proposed Targa project is located within the Delta region of California, which

is very flat with numerous levees that limit sight distance in the area. Due to the industrial developed nature of the area, minimal topographic relief, and lack of natural vegetative features, the existing land uses are the strongest determining factor for visual character. The dominant visual features of the area are industrial facilities and warehousing structures. The Interstate 5 bridge structure over the Delta at the eastern end of the Port area provides the highest point within the region to view the Port and the proposed lease area for Targa improvements. This freeway overpass is located approximately 2 miles east of the proposed lease area.

7.1.3.2 Study Area Setting

The proposed Targa project is located adjacent to the Pacific Ethanol lease area, which is encircled by a rail spur that services Pacific Ethanol corn unit trains. The proposed lease area is higher in elevation by approximately 5 to 10 feet compared to the surrounding area and was created by the disposal of dredged material. The rail spur encircling the proposed lease area is approximately 10 feet higher than the lease area where improvements are planned, thus obstructing views of the Targa improvements from nearby surface roadways. The proposed Targa improvements on the lease area would only be viewable from long distances such as from the overpass on Interstate 5.

To the north and west of the proposed lease area is the City Police Training Facility and Pistol Range. Beyond the San Joaquin River to the northwest of the proposed lease area is Rough and Ready Island. To the southeast of the proposed lease area is the City stormwater retention basin and sewage treatment plant. North of the proposed lease area are terminals for NuStar and Tesoro. Existing development in the general area consists of approximately 75 percent industrial and 25 percent institutional (including some empty lots that exist within the Port area).

Similar development exists in the areas surrounding the proposed pipeline and Berth #9. Land uses along W. Washington include additional fuel terminal facilities (Shell and Buckeye Terminals) and several vacant lots designated for industrial/port use. Several additional vacant lots and commercial/industrial operations exist along Port Road 13. North of Port Road 13, along Port Road 5, is the Port deep water channel berths. As previously discussed, the pipeline will be placed within an existing public ROW and will have no visual impacts.

Because this portion of the City is so highly developed with industrial and port infrastructure, few, if any, natural features exist within the area. Open space near the proposed lease area exists along the levee of the San Joaquin River. The relative visibility of the proposed lease area from residences, industrial, institutional, and commercial properties is low. As a result of the existing development, the viewer sensitivity remains low to moderate for commercial and industrial viewers, and moderate to more distant residential viewers.

7.1.3.3 Potential Project Visibility

Identification of the project's viewshed was based on review of project engineering drawings, visual simulations of the project's appearance from a bird's-eye view, study of topographic maps and air photos, and extensive field observations (*See Figure* 7.1-1: Site Elevation Plan). The

viewshed map indicates two categories of view areas: (1) those in which the proposed lease area and Berth #9 would likely be generally visible; and (2) those in which views toward the lease area and its ancillary facilities would likely be blocked for the most part, but may be visible from specific locations. The boundaries of the viewshed were set to the south sides of the proposed lease aera along the San Joaquin River levee, where views were not otherwise blocked by the raised rail spur, buildings, trees, or other obstructions. This distance was selected because elements of a view that are beyond the levee distance are considered part of the background—the landscape zone in which little color or texture is apparent, colors blur into values of blue or gray, and individual visual impacts become least apparent (USDA Forest Service 1973, pp. 56-57).

The proposed Targa project facilities would be most visible in views immediately adjacent to the lease area from the Pacific Ethanol access road, and from a short portion of the San Joaquin River levee. In most cases, views of the project features beyond the immediate vicinity would be completely blocked by intervening structures, raised railroad facilities, and topographic features of the site.

7.1.3.4 Sensitive Viewing Areas

Views of the lease area and Berth #9 are limited due to flat terrain, the raised rail spur feature, vegetative growth, existing Berth #9 building, and surrounding industrial development. The view is limited to lands immediately adjacent to the proposed lease area, which are industrial. There are no land uses or nearby activities that would attract sensitive viewers of the proposed Targa project. The only view area in close proximity to the proposed lease area is the San Joaquin River Levee and public access is restricted on the levee by the Port due to Homeland Security Administration requirements for security of industrial facilities connected to marine transportation. Therefore, no KOPs are identified for the proposed Targa project. The nearest sensitive viewers of the project are residential viewers located approximately 1 mile northeast of the proposed lease area, and students at the George Washington Elementary School located 1.5 miles east of the proposed lease area. The proposed lease area would not be visible to any potential sensitive viewers due to the topography and the raised rail feature, which encircles the proposed leased area. Likewise, no sensitive views will be impacted by the proposed pipeline or the proposed use of Berth #9. The pipeline, as previously discussed, will be placed in an existing ROW and will be either low to the ground or buried (such as in the case of the line entering under the railroad tracks). This placement will ensure that views of the pipeline are limited to the nearby industrial and commercial operations within the Port area. Furthermore, *all* proposed uses at Berth #9 will be wholly contained within the existing structure (loading arms will be placed and operated within the existing building and will extend therefrom). Additionally, the proposed improvements, will likely improve the visual condition of the existing Berth #9 structures. As such, it is highly unlikely that the nearest sensitive receptors, residences over 1,000 feet north of Berth #9, will experience any visual impairment or intrusion.

REV.	DESCRIPTION	BY	APP.	CHKD

SITE ELEVATION PLAN

DATE:	SCALE:
BY:	FIGURE: 7.1-1

TARGA

FACILITY:
TARGA TERMINAL
STOCKTON, CALIFORNIA

7.1.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to aesthetics significant if the project would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- substantially degrade the existing visual character or quality of the site and its surroundings; and/or
- create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

7.1.5 Impacts and Mitigation Measures

7.1.5.1 2006 Pacific Ethanol EIR Impacts

Impacts of the proposed Targa project on aesthetics are discussed in Section 3.1: Aesthetics of the 2006 Pacific Ethanol EIR. No significant impacts to visual resources or aesthetics of the Port area were identified in the 2006 Pacific Ethanol EIR for the Pacific Ethanol production and transshipment facility. The proposed Targa project is within the scope of the analysis in the 2006 Pacific Ethanol EIR and there are no changed circumstances since the preparation of this document that require re-analysis of the potential impacts.

7.1.5.2 2006 Pacific Ethanol EIR Mitigation Measures

No significant impacts on aesthetics or visual resources were identified in the 2006 Pacific Ethanol EIR; therefore, no mitigation measures were recommended.

7.1.5.3 Targa Stockton Terminal Project-specific Impacts

No significant impacts to aesthetics or visual resources of the Port area were identified as a result of the proposed Targa project.

7.1.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

No additional mitigation measures are recommended for the Targa Stockton Terminal Project to reduce project-specific potential visual impacts not addressed in the 2006 Pacific Ethanol EIR.

7.1.6 Aesthetics Initial Study Responses

Table 7.1-1: Aesthetics Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☐	☑
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.	☐	☐	☐	☑	☐

7.1.7 Responses to Initial Study Questions

7.1.7.1 Scenic Vistas: Less than Significant

The proposed Targa project would not interfere with any scenic vistas or damage any scenic resources. Development of the proposed lease area was evaluated in the 2006 Pacific Ethanol EIR (pages 3-1). It was concluded that the existing visual character of the proposed lease area is not considered scenic, and, therefore, would be a less-than-significant impact to the existing visual character or quality.

There would be no significant effect to aesthetics due to proposed Targa marine operations at Berth #9. Such operations include the transshipment of crude oil and ethanol products. As such, shipping vessels would enter and exit the Port for the delivery of products, and no ships would be permanent fixtures. Furthermore, all permanent improvements/operations equipment would be housed within the existing storage shed that is currently affixed at Berth # 9 (*See Figure* 3.5-2). Because these improvements and modifications would be wholly housed within the storage shed, they would not cause visual impairment; therefore, no significant effects would occur.

7.1.7.2 Damages to Scenic Resources: Less than Significant

The grade of the finished lease area would be generally sloped from west to east, with trees planted along the new access road. Tree clearing/removal would not be necessary for site grading, and where tree clearing is necessary for ROW clearing, the ROW boundaries would be flagged and any specimen trees on the perimeter would be preserved from damage. The proposed Targa project would not damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. Likewise, the utilization of the existing resources at Berth #9 will not impair scenic resources. Furthermore, construction required at Berth #9 will not cause the loss of scenic resources as any construction will occur to the paved roadway and the existing structure, neither of which are scenic resources.

Development of the proposed lease area was evaluated in the 2006 Pacific Ethanol EIR (pages 3-1). It concluded that the existing visual character of the proposed lease area is not considered scenic, and there will thus be a less-than-significant impact to scenic vistas or scenic resources. The proposed lease area is surrounded by industrial uses, a police training facility, and a wastewater treatment facility. Similarly, the proposed Targa project will not result in impacts to scenic resources, and any potentially resulting affects will be determined to be less-than-significant.

7.1.7.3 Visual Character: No Impact

The proposed lease area is currently vacant and the existing visual character will not be changed by the proposed Targa project. The proposed Targa project calls for improvements with similar scale, density, and building materials as existing industrial development surrounding the proposed lease area. As previously discussed, the proposed utilization of Berth #9 includes the use of an existing facility, and therefore, any required repair or additions made to Berth #9 will not change the visual character of the Port deep water channel waterfront. Additionally, there is no State scenic highway near or affected by the proposed Targa project. Development of the proposed lease area was evaluated in the 2006 Pacific Ethanol EIR (pages 3-1). It concluded that the existing visual character of the proposed lease area is not considered scenic; therefore, impacts would be less than significant.

7.1.7.4 Light and Glare: Less than Significant

The proposed Targa project would include parking lot lighting and security lighting. The nearest sensitive receptor is located approximately 0.5 mile from the proposed lease area, across the San Joaquin River. Land uses adjacent to the proposed lease area such as the industrial facilities and the wastewater treatment facility are existing sources of light and glare. A significant increase in light or glare in the area would not be occasioned by this project. The impact is considered less than significant. The 2006 Pacific Ethanol EIR determined that land uses adjacent to the proposed lease area are industrial and the proposed Targa project would not create a significant new source of light or glare (2006 Pacific Ethanol EIR, page 3-1).

7.2 AGRICULTURE AND FORESTRY RESOURCES

This section describes the existing proposed lease area, Berth #9, and the pipeline route, agricultural and forestry conditions as well as applicable federal, state, and local farmland conservation policies. Potential impacts to agricultural and forestry resources associated with implementation of the proposed Targa project, and 2006 Pacific Ethanol EIR findings of no impact to agricultural resources from the Pacific Ethanol Production and Transshipment Facility, are also discussed in this section.

7.2.1 Background

7.2.1.1 Regulatory Context

California Department of Conservation's Farmland Mapping and Monitoring Program Lands

The Farmland Mapping and Monitoring Program (FMMP) was designed by the Soil Conservation Service in 1982 as a non-regulatory system that categorizes important farmland through the State of California. The goal of the program is to provide maps and data to various stakeholders to assist them in making land planning decisions with regard to the best utilization of California's farmlands. The important farmland categories are Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance.

Williamson Act Farmlands

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

7.2.2 Required Permits and Approvals

No permits or approvals are required.

7.2.3 Methodology

Information relating to agricultural resources and zoning was obtained from California Department of Conservation maps, and City of Stockton 2035 General Plan and Zoning District maps. Site inspection of the proposed lease area, Berth #9, and the pipeline route, confirmed the existing conditions of the area and the surrounding land uses.

7.2.4 Environmental Setting

7.2.4.1 Regional Overview

The Port lies on the banks of the San Joaquin River about 40 miles south of the Port of West Sacramento and about 60 miles east of the Port of San Francisco in central California. The Port consists of approximately 2,000 acres of existing industrial uses related to shipping and receiving of goods and commodities. The Port and related industrial land uses are planned for in regional and community plans. The proposed lease area is centrally located within the port and industrial planned area.

7.2.4.2 Study Area Setting

The City of Stockton 2035 General Plan designates the proposed lease area and Berth #9 for industrial use, and the zoning classification is Port District (PT). The proposed lease area and Berth #9 have never supported agricultural production, and was reclaimed swamp land using dredged materials for the purpose of creating additional acreage for industrial use. The proposed lease area and Berth #9 have never supported forestry resources. The land within the Port area has been subdivided to small industrial parcels, which are not conducive to agricultural production. All property surrounding the proposed lease area (including the public ROW to be used for the proposed pipeline and Berth #9) has been developed for industrial and port land uses and no agricultural production occurs within the area. The proposed lease area is zoned for non-agricultural uses, which precludes the site for qualifying for Williamson Act contracts. The 2006 Pacific Ethanol EIR (page 3-1) documented that the proposed lease area is not currently in agricultural use, have forestry resources, or subject to Williamson Act contracts.

7.2.5 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to agriculture significant if the project would:

- convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- conflict with existing zoning for agricultural use or a Williamson Act contract; and/or
- involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

The environmental analysis in the Targa Stockton Terminal Project Tiered Initial Study added the following factors for consideration of impacts to agriculture and forestry:

- would the project result in the loss of forest land or conversion of forest land to non-forest use;

- would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversation of forest land to non-forest use.

7.2.6 Impacts and Mitigation Measures

7.2.6.1 2006 Pacific Ethanol EIR Impacts

Impacts of the proposed Targa project on agricultural resources were addressed in Section 3.2: Agricultural Resources of the 2006 Pacific Ethanol EIR. The proposed Targa project is within the scope of the agricultural resource analysis presented in the 2006 Pacific Ethanol EIR. There are no changed circumstances since the preparation of these documents that require re-analysis of cumulative impacts. The construction and operation of the proposed Targa project would not require the conversion of prime agricultural land to non-agricultural uses. The lease area is situated in an area that has been designated as "Urban and Build-Up" by the State Important Farmland Map as developed by the San Joaquin County Planning Department, as required by the California Resources Agency. The proposed lease area is not within a Williamson Act Contract for agricultural land preservation. There are no significant agricultural resources impacts related to the proposed Targa project.

7.2.6.2 2006 Pacific Ethanol EIR Mitigation Measures

No significant impacts on agriculture were identified as significant in the 2006 Pacific Ethanol EIR; therefore, no mitigation measures were recommended.

7.2.6.3 Targa Stockton Terminal Project-specific Impacts

The construction and operation of the proposed Targa project would not require the conversion of prime agricultural land to non-agricultural uses nor affect any timberlands. The proposed lease area is situated in an area that has been designated as an area deemed acceptable for industrial land uses such as the proposed Targa project. The proposed lease area is not within a Williamson Act contract for agricultural land preservation. Furthermore, there are no existing forest lands within the Port that would be affected by the construction of the proposed Targa project, including the proposed lease area, the proposed pipeline route, or at Berth #9. Developing the proposed Targa project at this location would make optimal use of the existing infrastructure and public services of the City and the Port while conserving prime agricultural lands and timberlands.

7.2.6.4 Targa Stockton Terminal Project-specific Mitigation Measures

No project-specific mitigation measures would be implemented for the proposed Targa project as there are no project-specific impacts associated with the proposed Targa project.

7.2.7 Agriculture and Forestry Initial Study Responses

Table 7.2-1: Agriculture and Forestry Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
AGRICULTURAL RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	☑
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☐	☑
d) Result in the Loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐	☑
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☐	☑

7.2.8 Responses to Initial Study Questions

7.2.8.1 Convert Designated Farmland: No Impact

There would not be any changes in the existing environment that could result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use (2006 Pacific Ethanol EIR page 3-1). The proposed Targa project would not convert farmland as none exists in the lease area, Berth #9, nor pipeline route. Therefore, there would be no impact.

7.2.8.2 Zoning Conflict and Williamson Act Contract: No Impact

The proposed Targa project, including Berth #9 and the proposed pipeline, is zoned as PT and is not subject to a Williamson Act contract (2006 Pacific Ethanol EIR, page 3-1). Therefore, there would be no impact.

7.2.8.3 Conflict with Existing Forest Land, Timberland, or Timberland Production Zones: No Impact

The proposed Targa project would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of forest land, timberland, or timberland zoned Timberland Production. The spatial relationship of the proposed lease area relative to any such land is such that the two land uses would not conflict. The nearest forest area is over 50 miles from the proposed lease area, and the nearest timberland would be no closer as there are no timberland zoned properties within San Joaquin County as of 2001 (CDFFP 2002 confirmed by CDFFP 2010). The proposed Targa project would therefore, not involve other changes in the existing environment that could result in conversion of timberland or forest land. Therefore, there would be no impact.

7.2.8.4 Result in the Loss of Forest Land: No Impact

The proposed Targa project, including Berth #9 and the proposed pipeline, is zoned as PT and possesses no forestlands (2006 Pacific Ethanol EIR, page 3-1). Furthermore, the nearest forest resources are located in the Stanislaus forest which is well over 50 miles from the proposed lease area. Therefore, there would be no impact.

7.2.8.5 Involve Changes that Could Result in Conversion of Farmland or Forestland

As discussed above, throughout this section there is no existing forest or farm land in the nearby vicinity of the proposed lease area that could be converted. Therefore, there would be no impact.

7.3 AIR QUALITY

This section describes the impacts of the proposed Targa project on local and regional air quality. The two primary sources of odor and air contaminants from the proposed Targa project consist of construction-related emissions and operational emissions, i.e., particulate matter (fugitive dust) from surface disturbance activities, such as grading preparation, roadway construction, and other short-term emissions from fuel combustion in equipment, including semi-trucks, graders, trenchers, pavers, backhoes, and front-end loaders. Dust and fumes from increased traffic associated with construction can also reduce air quality. The presence of contaminants does not equate to an environmental or health risk unless minimum threshold values are exceeded. Air contaminants released from construction and operational activities may include: gases, particulate matter (dust), gases in diesel exhaust such as nitrous oxide, nitrogen dioxide, formaldehyde, benzene, sulfur dioxide, hydrogen sulfide, carbon dioxide, and carbon monoxide can also create health problems.

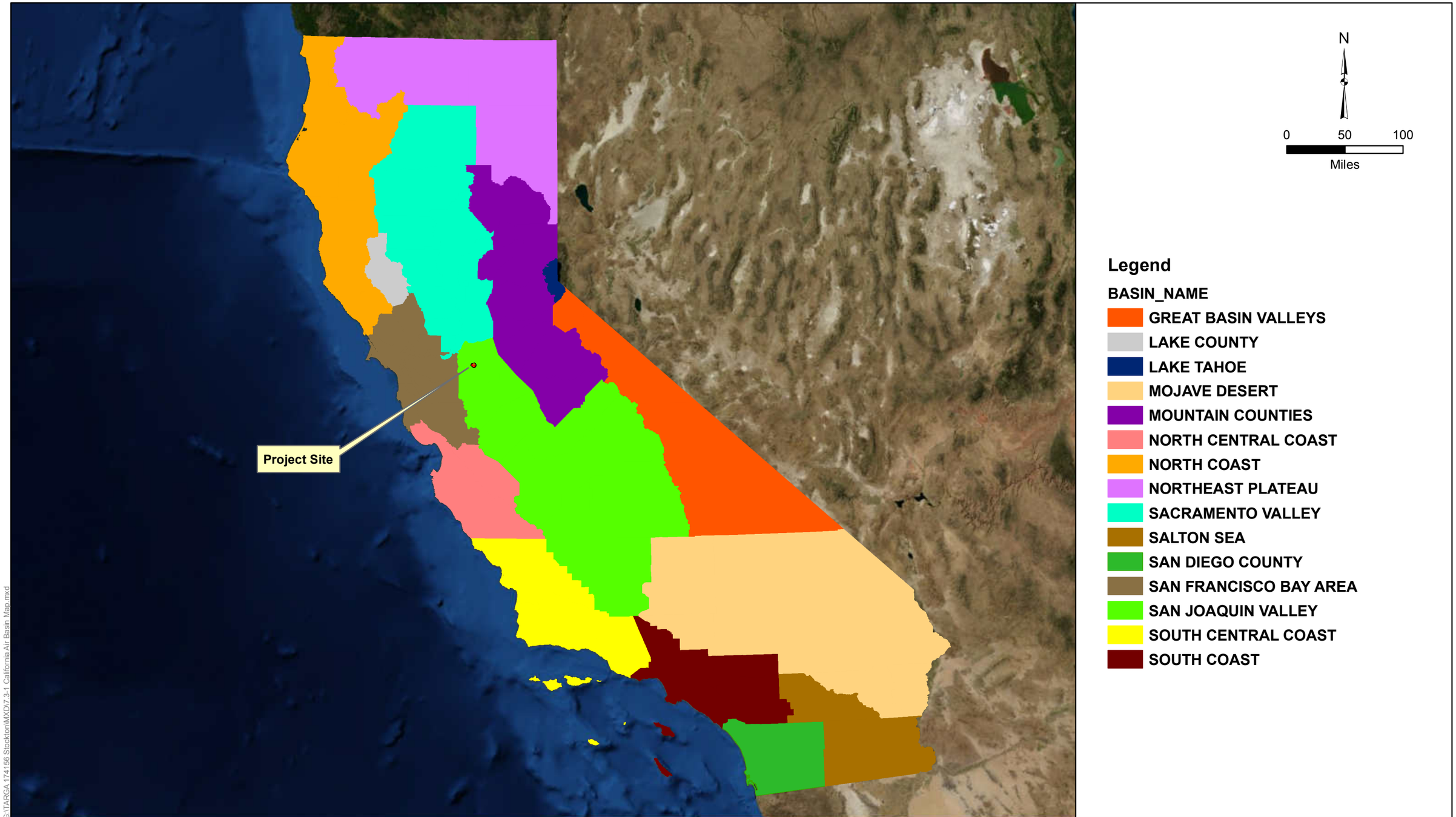
7.3.1 Background

7.3.1.1 Regulatory Context

Federal Regulations

The United States Environmental Protection Agency (EPA) is responsible for enforcing the many federal environmental and hazardous waste laws. California is under the jurisdiction of EPA Region IX, with offices in San Francisco. The federal Clean Air Act (CAA), established in 1970 and last amended in 1990, authorized the establishment of national health-based air quality standards, set deadlines for their attainment, and established actions required of areas in the nation that exceeded these standards. Under the CAA, state and local agencies in areas that exceed the National Ambient Air Quality Standards (NAAQS) are required to develop state implementation plans (SIP) to show how they will achieve the NAAQS. The EPA's responsibility to control air pollution in individual states is primarily to review submittals of SIPs that are prepared by each state.

The following federal regulations and standards would apply to the proposed Targa project.



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CALIFORNIA AIR BASIN MAP		TARGA
DATE: Nov 17, 2011	SCALE: 1:5,000,000	FACILITY: TARGA TERMINAL STOCKTON, CALIFORNIA
BY:	FIGURE: 7.3-1	

Title V (40 CFR Part 70)

This regulation establishes the minimum standards for State permit programs. This requirement comes from Title V of the CAA, as amended in 1990. Implementation of the Title V program is delegated to the SJVAPCD, and addressed in District Rule 2520. Major sources are those that have actual or permitted potential emissions in excess of specific thresholds depending on the attainment status of the SJVAPCD. They are identified in tons per year for any of the following: NO_x, volatile organic compounds (VOCs), sulfur oxides (SO_x), carbon monoxide (CO), and PM_{10}. Title V also identifies major sources as those that emit 10 tons per year of any single hazardous air pollutant (HAP), or 25 tons per year of any combination of HAPs. Sources subject to Title V would be required to submit the Title V application to the SJVAPCD within 12 months of commencing operations.

Title IV (40 CFR Parts 72 – 80)

The acid rain provisions of the CAA as amended in 1990 are implemented by the SJVAPCD via Rule 2540. The proposed Targa project would be subject to Rule 2540 and would be required to hold sulfur dioxide (SO_2) allowances to cover all SO_2 emissions on an annual basis. The proposed Targa project would have to file a Title IV application with the SJVAPCD and EPA and enter into the SO_2 allowance tracking system.

Vapor Control Systems (33 CFR Part 154 Subpart E)

Title 33 Part 154 Subpart E regulates vapor control systems for the offloading of bulk oil and hazardous materials from marine tankers. The proposed Targa project would be subject to this rule and would have to follow all requirements for vapor controls during the offloading of fuels at the dock.

New Source Performance Standards (40 CFR Part 60 Subparts 60.1-60.5250)

The design of the facility calls for the use of a PURGIT condensors to manage vapor exhaust and would be subject to New Source Performance Standards. District Rule 4001 incorporates these federal standards.

National Ambient Air Quality Standards

The EPA has set NAAQS for several air pollutants on the basis of human health and welfare criteria. Two types of NAAQS have been established: primary standards, which protect public health; and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction. Primary NAAQS were established for the following several “criteria” air pollutants listed in Table 7.3-1.

Table 7.3-1: National Ambient Air Quality Standards

Air Pollutant	Averaging Time	Units1	NAAQS	Attainment Status
Ozone	8-hour 1-hour	ppm ppm	0.075 ------	Nonattainment/Severe
Carbon monoxide	8-hour 1-hour	ppm ppm	9 35	Attainment Attainment
Nitrogen dioxide	Annual average 1-hour	ppm ppm	0.053 0.1	Attainment
Sulfur dioxide	Annual average 24-hour 1-hour	ppm ppm ppm	0.5 0.075 ------	Attainment
Fine particulate matter ($PM_{2.5}$)	Annual average 24-hour	$\mu g/m^3$ $\mu g/m^3$	15 35	Nonattainment
Respirable particulate matter (PM_{10})	Annual 24-hour	$\mu g/m^3$ $\mu g/m^3$	------- 150	Attainment
Lead	3 month average	$\mu g/m^3$	0.15	Attainment

[1]ppm = parts per million; $\mu g/m^3$ = microgram per cubic meter

State Regulations

In California, the California Air Resources Board (CARB) is responsible for preparing and enforcing the federally required SIP in an effort to achieve and maintain NAAQS and California Ambient Air Quality Standards (CAAQS), which were developed as part of the California Clean Air Act (CCAA) adopted in 1988. CAAQS for criteria pollutants are equal to or more stringent than NAAQS, and include other pollutants for which there are no NAAQS. In addition, CARB is responsible for assigning air basin attainment and nonattainment designations in California. Air basins are designated as being in attainment if the levels of a criteria air pollutant meet the CAAQS for the pollutant, and are designated as being in nonattainment if the level of a criteria air pollutant is higher than the CAAQS.

CARB is the agency responsible for regulating statewide air quality, but implementation and administration of CAAQS is delegated to 35 regional air pollution control districts (APCD) and

air quality management districts. These districts have been created for specific air basins, and have principal responsibility for:

- developing plans to meet CAAQS and NAAQS;
- developing control measures for non-vehicular sources of air pollution necessary to achieve and maintain CAAQS and NAAQS;
- implementing permit programs established for the construction, modification, and operation of air pollution sources;
- enforcing air pollution statutes and regulations governing non-vehicular sources; and,
- developing employer-based trip-reduction programs.

To regulate air pollutant emissions within California, the state has been divided into 15 air basins based upon similar meteorological and geographic conditions and consideration for political boundary lines whenever practicable. The proposed Targa project is located in the San Joaquin Valley Air Basin (Air Basin), which is the second largest air basin in California and is defined by the Sierra Nevada to the east, the Coast Ranges to the west, and the Tehachapi Mountains to the south (*See Figure* 7.3-1). This Air Basin includes San Joaquin County, Merced County, Madera County, Fresno County, Kings County, Tulare County, and a portion of Kern County.

The proposed Targa project would be subject to CARB's air quality legislation.

Assembly Bill (AB) 2588 Air Toxics Hot Spots Program

The proposed Targa project may be required to prepare and submit an air toxics emission inventory plan and report pursuant to a time frame and schedule set by the SJVAPCD. Data derived from the air toxics report would then be used to score the facility with respect to "risk" issues. Since a screening health risk assessment would be part of the initial permitting submittal, the need for a specific AB 2588 risk assessment would be determined at this time by the SJVAPCD. Air toxics reports are periodically updated.

California Ambient Air Quality Standards

States may establish their own standards, provided the state standards are at least as stringent as the NAAQS. California has established CAAQS pursuant to California Health and Safety Code (CHSC) [§39606(b)] and its predecessor statutes. The CAAQS are provided in Table 7.3-2. The CHSC [§39608] requires CARB to identify and classify each air basin in the state on a pollutant-by-pollutant basis. Subsequently, CARB designated areas in California as nonattainment based on violations of the CAAQSs.

Table 7.3-2: California Ambient Air Quality Standards

Air Pollutant	Averaging Time	Units	CAAQS	Attainment Status
Air Pollutant	**Averaging Time**	**Units**	**CAAQS**	**Attainment Status**
Ozone	8-hour 1-hour	ppm ppm	0.07 0.09	Nonattainment Nonattainment/Severe
Carbon monoxide	8-hour 1-hour	ppm ppm	9 20	Attainment/Unclassified
Nitrogen dioxide	Annual average 1-hour	ppm ppm	0.03 0.18	Attainment
Sulfur dioxide	Annual average 24-hour 1-hour	ppm ppm ppm	------- 0.04 0.25	Attainment
Respirable particulate matter (PM_{10})	Annual average 24-hour	$\mu g/m^3$ $\mu g/m^3$	20 50	Nonattainment
Fine particulate matter ($PM_{2.5}$)	Annual average 24-hour	$\mu g/m^3$ $\mu g/m^3$	12 ------	Nonattainment
Sulfates	24-hour	µg/m3	25	Attainment
Lead (Pb)	30-day average	$\mu g/m^3$	1.5	Attainment
Visibility-reducing particulates (VSP)	8-hour	-------	see note[a]	Unclassified

Note: In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent

AB 32 California Global Warming Solutions Act of 2006

AB 32 requires California to reach 2000 levels of greenhouse gas (GHG) emissions by 2010, reach 1990 levels by 2020, and have 80 percent less emissions than 1990 levels by 2050. CARB, together with the California Energy Commission and other agencies, has been developing and revising the regulation, and as of January 1, 2012 the new policies have gone into effect and are legally enforceable. The California Attorney General's Office does not yet know what the contents of the scoping plan will be, and, therefore, cannot speculate on possible future actions

based upon AB 32. CARB has final authority, and, therefore, the Port could not give a final determination of how/whether environmental reviews or potential mitigation measures have changed.

AB 32 is relevant to the site-approval CEQA process, per the newly adopted 2011 CEQA Guidelines. Despite a clearly established timeline for AB 32 implementation, the California Attorney General's office has made the claim that CEQA requires that any projects currently in the process of CEQA approval must immediately satisfy the goals of AB 32 and the Governor's Executive Order 2-3-05. The Courts have upheld several challenges to the consideration of GHGs under the auspice of CEQA. As inclusion of GHG issues in the CEQA process is new, the requirements of each Air Pollution Control District are continuously evolving. There are three possible threshold levels: No significant threshold level, an emissions threshold level set at zero, and a threshold set at a non-zero level. There are also varying analytical methodologies in calculating GHG emissions, and the SJVAPCD yet to adopt standards on threshold levels or potential analytical methodologies.

The SJVAPCD has found it difficult to set a threshold on significance, as determining whether an individual project will have a measurable impact on global climate is problematic. However, any project receiving CEQA approval is required to calculate pre-project and post-project, GHG emissions to identify and characterize the project's carbon emissions. A potential issue in proposing mitigation measures for GHG emissions is that the SJVAPCD may be opposed to mitigation measures for criteria pollutants. In certain cases, the SJVAPCD may be more interested in protecting human health than following methodological air quality protection, and in such cases the SJVAPCD may choose to limit criteria air pollutants, even ifnot legally required to do so.

Local Regulations

The SJVAPCD was formed in 1992 and is the lead air quality regulatory agency for the San Joaquin Valley Air Basin. The SJVAPCD has jurisdiction over all point and area sources except mobile sources (such as motor vehicles), consumer products, and pesticides. In addition to planning responsibilities, the SJVAPCD possesses permitting authority over stationary sources. The SJVAPCD and CARB have joint responsibility for attaining and maintaining the NAAQS and CAAQS in the Air Basin.

The SJVAPCD is a CEQA Responsible Agency for the proposed Targa project via the SJVAPCD Permits Required Rule (Rule 2010) and New Source Review Rule (Rule 2201).

In 2006, the SJVAPCD implemented the Indirect Source Review (ISR) rule, which requires developers of larger residential, commercial, and industrial projects to reduce smog-forming and particulate emissions generated by their projects. In general, new development contributes to the air-pollution problem in the San Joaquin Valley (Valley) by increasing the number of vehicles and vehicle miles traveled. In 2005, on-road vehicles generated approximately 200 tons per day of nitrogen oxides (NO_x) and direct respirable particulate matter (PM_{10}) pollution in the Valley. Although new, cleaner technology is reducing per-vehicle pollution, these reductions are offset

by the emissions increase from increased traffic due to new developments. ISR applies to development projects that have yet to gain discretionary approval. Pursuant to the SJVAPC regulations, this proposed Targa project would not be subject to ISR, although it will be subject to Rule 2201.

As part of their jurisdictional responsibilities, the SJVAPCD and CARB operate ambient air quality monitoring stations in numerous locations within the district boundaries. These stations provide real-time air quality data to the public, identify times when air quality could have adverse health effects to those exposed, and to determine attainment status with federal and State air quality standards. The three closest monitoring stations are provided in Table 7.3-3.

The Port is under the jurisdiction of the SJVAPCD and has adopted a set of local air regulations that would apply to the permitting, construction, and operation of the proposed Targa project.

New Source Review

The SJVAPCD New Source Review rule (Rule 2201) requires the following:

- No net increase in emissions above specified thresholds from new and modified stationary sources for all nonattainment pollutants and their precursors
- Determination of Best Available Control Technology (BACT)
- Emissions impact analysis on ambient air quality
- Prevention of significant deterioration increments, Class 1 areas, etc.
- Analysis of threshold applicability
  - Major source classification thresholds (see Table 7.3-4)
  - Emissions offset threshold levels (see Table 7.3-5) (threshold of CO in attainment areas can possibly be increased if certain conditions are met)
- Comply with public notice and hearing requirements

Table 7.3-3: Ambient Air Monitoring Sites near the Proposed Targa project

Site Name	AIRS	Agency	Address	Pollutants Monitored[1]	Approximate Distance from Site
Stockton-Hazelton	60771002	CARB	1593 E Hazelton Street, Stockton, CA 95205	O_3, PM_{10}, $PM_{2.5}$, CO, NO_2, TAC	3.5 miles
Stockton-Wagner-Holt	60773010	SJVAPCD	8778 Brattle PI, Stockton,	PM_{10}	9.0 miles

School			CA 95209		
Tracy Airport	60773005	SJVAPCD	5749 S. Tracy Boulevard, Tracy, CA 95376	O_3, PM_{10}, $PM_{2.5}$, NO_2	20.0 miles

[1]O_3 = ozone; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particles; CO = carbon monoxide; NO_2 = nitrogen dioxide; TAC = toxic air contaminants

Table 7.3-4: Major Source Emission Thresholds

Pollutant	Major Source Threshold (pounds/year)
Reactive organic gases	20,000
Nitrogen oxides	20,000
Carbon monoxide	200,000
Fine particles	200,000
Respirable particulate matter	140,000
Sulfur oxides	140,000

Table 7.3-5: Emission Offset Threshold Levels

Pollutant	Stationary Source Potential to Emit (pounds/year)
Reactive organic gases	20,000
Nitrogen oxides	20,000
Carbon monoxide (nonattainment areas)	30,000
Carbon monoxide (attainment areas)	200,000
Sulfur oxides	54,750
Respirable particulate matter	29,200

SJVAPCD General Prohibitory Rules

The listed rules are the primary prohibitory rules that may apply to the proposed Targa project. The list is of potential regulations to the project not limited to these regulations and may include additional rules as details of the project are developed.

> *Rule 4001* implements the general provisions of the State's nuisance requirements and prohibition on circumvention.

Rule 4002 adopts 40 CFR 60(C) national emissions standards for hazardous air pollutants.

Rule 4201 establishes an emission standard for particulate matter at 0.1 grain per cubic foot of exhaust gas.

Rule 4301 limits emissions of combustion contaminants, sulfur compounds and NO_2 produced from the burning of fuel.

Rule 4311 establishes guidelines for the use of a flare for burning product vapors.

Rule 4701 and *Rule 4702* limit the emission of NO_x, CO, and reactive organic gases (ROG) from internal combustion engines.

Rule 8011 and *Rule 8021* limit the emission of fugitive PM_{10} and implement the visual emissions standards, which are 20 percent opacity.

SJVAPCD Thresholds of Significance

The SJVAPCD recommended thresholds for determining whether projects have significant adverse air quality impacts are provided in its Guide for Assessing and Mitigating Air Quality Impacts 2002 Revision. These thresholds are provided in Table 7.3-6.

Table 7.3-6: SJVAPCD Control District Thresholds of Significance

Pollutant	Threshold of Significance
Reactive organic gases	10 tons/year
Nitrogen oxides	10 tons/year
PM10, Respirable particulate matter	15 tons/year
PM2.5 Fine particulate matter	15 tons/year
Carbon monoxide	9 parts per million (ppm) (8-hour average) 20 ppm (1-hour average)
Toxic air contaminants	Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million. Ground-level concentrations of non-carcinogenic toxic air contaminants would result in a Hazard Index greater than 1 for the MEI.

7.3.1.2 Required Permits and Approvals

The SJVAPCD would require an Authority to Construct and Permit to Operate for stationary emission sources at the facility.

CARB would require Certification of the Vapor Recovery System and Motor Vehicle Fuel Distribution Certification.

7.3.2 Methodology

Emissions from the proposed Targa project construction and operations were estimated using appropriate methodology provided by the SJVAPCD, CARB, and EPA. To determine whether the calculated emissions and the impacts to air quality are significant environmental effects, CEQA guidelines have been addressed.

The operational emissions were evaluated for the proposed Targa project at projected 2017 operating capacity. Operational emissions sources include locomotives, storage tanks, ocean-going vessels (OGV), employee vehicle traffic, and trucking. Emissions from the five sources are summed and compared to thresholds of significance. Mitigation measures are recommended where necessary.

7.3.3 Environmental Setting

Air quality is an important factor in the health and the quality of life of a community. Air pollutants have the potential to adversely affect human health, wildlife, climate, visibility, and agriculture. Within the past five years, awareness of the importance and global effect of air quality has increased, and as result, the regulatory framework's efforts to limit air pollutant emissions have intensified, particularly in California.

The pollutants regulated by either the CAA or CCAA are known as criteria pollutants. Non-criteria air pollutants are not regulated by these Acts, but are of concern as they may be precursors to criteria air pollutants, or could also have other adverse impacts. Criteria pollutants include particulate matter, ozone (O_3), NO_x, CO, SO_2, and lead (Pb). Further detailed description of these pollutants is provided in section 7.3.3.2.

Important non-criteria pollutants include GHG emissions and air toxics. GHGs are produced from electricity generation, road transportation, and other energy sources; industrial processes; agriculture, forestry, and other land use; solid waste disposal; and wastewater treatment and discharge. Air toxics are generated from industrial processes (e.g., gas stations, dry cleaners, or car repairs), as well as mobile sources using diesel engines and agricultural sources.

Recent changes to CEQA now mandate that environmental impact analyses include an assessment of GHG emissions. After a significant public development process, in December 2009, the Valley Air District Governing Board adopted the first comprehensive regional policy and guidance on addressing and mitigating GHG impacts caused by industrial, commercial, and

residential development in the San Joaquin Valley. This set of guidance documents is designed to assist local permitting agencies and businesses in addressing GHG impacts under CEQA.

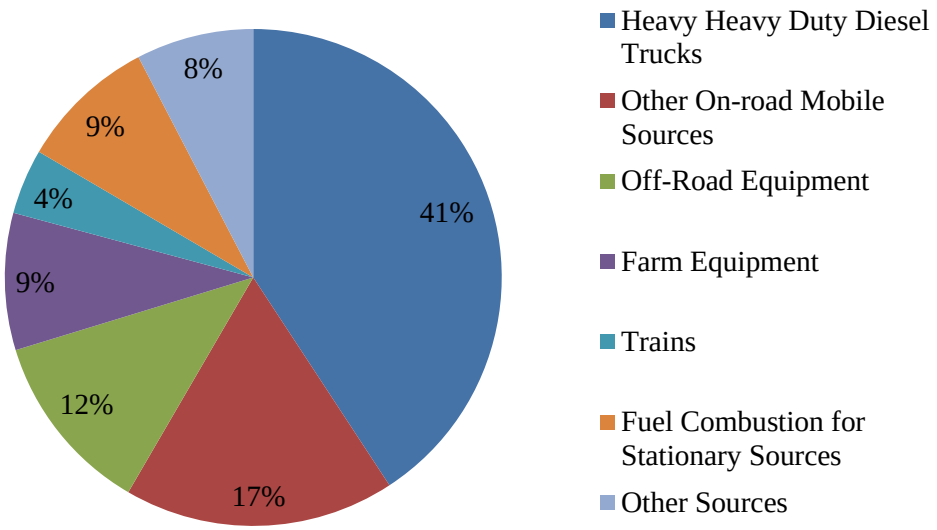
7.3.3.1 Regional Overview

The climate within the SJVAPCD is typical of inland valleys in California, with hot, dry summers and cool, mild winters. Daytime temperatures in the summer often exceed 100 degrees, with lows in the 60s. In winter, daytime temperatures are usually in the 50s, with lows around 35 degrees. Radiation (Tule) fog is common in the winter, and may persist for days. Winds are predominantly up-valley (from the north) in all seasons, but more so in the summer and spring months. Winds in the fall and winter are generally lighter and more variable in direction, but generally blow toward the south and southeast.

Because of the Valley's unique physical characteristics, its pollution potential is very high. Surrounding elevated terrain, in conjunction with temperature inversions, frequently restrict lateral and vertical dilution of pollutants. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidants, and the Valley becomes a frequent scene of photochemical pollution (ozone).

Ozone is formed via chemical reactions between hydrocarbons and nitrogen oxides in the presence of ultra-violet radiation or sunlight. While the SJVAPCD's NO_x atmospheric concentrations are not particularly high, NO_x is a precursor compound for O_3, which causes most of the SJVAPCD's air quality problems. A pie chart showing the sources of NO_x emissions from the SJVAPCD's 2010 annual air quality report is provided on Figure 7.3-2.

Figure 7.3-2: 2010 Nitrogen Oxide Emissions in San Joaquin Valley Air Basin



Fall and winter comprise the San Joaquin Valley's $PM_{2.5}$ season. In late 2009 through early 2010, there were more "Good" air quality days and fewer "Unhealthy" air quality days as compared to previous years. Such reports indicate evidence of the Valley's continued air quality improvement.

The EPA re-designated the San Joaquin Valley to Attainment of the federal PM_{10} standard in November 2008. The Valley qualifies for the Attainment ranking because no monitoring sites have experienced PM_{10} violations since 2003. While PM_{10} air quality met federal standards in 2009–2010, the Valley experienced three days when unusually strong winds stirred up dust, which raised PM_{10} concentrations in the southern end of the Valley. These weather-driven episodes are considered Exceptional Events under federal regulations, and do not constitute violations of the health-based standard.

7.3.3.2 Air Quality Pollutants

Ozone

Ozone is the most prevalent of a class of photochemical oxidants formed in the urban atmosphere. O_3 is formed via chemical reactions between volatile organic compounds (VOCs are referred to as ROGs throughout) and nitrogen oxides in the presence of ultra-violet radiation or sunlight. Unlike other criteria pollutants, O_3 is not emitted directly into the atmosphere by any sources, it is only formed when the precursor compounds are present. These precursor compounds (reactive hydrocarbons and NO_x) are generated by combustion sources such as factories and automobiles as well as evaporation of solvents and fuels. The health effects of O_3 are eye irritation and deterioration of lung tissues. O_3 can damage materials such as rubber, and also harm plants, crops, and marine life. O_3 concentrations in the SJVAPCD are some of the highest in the country, with the highest concentrations during summer when sunlight is most abundant.

Carbon Monoxide

Carbon monoxide is a colorless, odorless gas emitted from combustion processes. Nationally and, particularly in urban areas, the majority of CO emissions to ambient air come from mobile sources. CO can cause harmful health effects by reducing oxygen delivery to the body's organs and tissues. At extremely high levels, CO can cause death.

Currently, air quality meets the current ambient air quality CO standards throughout the country. Most sites have measured concentrations below the national standards since the early 1990s, since which time improvements in motor vehicle emissions controls have contributed to significant reductions in ambient concentrations.

Particulate Matter

Particulate matter consists of solid and liquid particles of dust, soot, aerosols, and other matter that are small enough to remain suspended in the air for a long period of time. Particulate matter is regulated in two categories based upon diameter. Course particles (PM_{10}) are between 2.5 and

10 microns in diameter and arise primarily from natural processes such as wind-blown dust. $PM_{2.5}$ are fine particles less than 2.5 microns in diameter and are produced mostly from combustion or burning. Fine particles typically have more adverse health effects, because they are small enough to absorb into the lung tissue. Particulate matter in the air is from both natural sources (wind-blown dust and pollen) and manmade sources (combustion, automobiles, field burning, factories, and road dust). A portion of the particulate matter in the atmosphere is also a result of photochemical processes. The effects of high concentrations on humans include aggravation of chronic diseases, including heart/lung disease.

Greenhouse Gases

Greenhouse gases are heat-trapping compounds that absorb and emit radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect, which results in global climate change. The primary GHGs in the Earth's atmosphere include water vapor, carbon dioxide (CO_2), methane, nitrous oxide, O_3, and flourinated gases (hydrofluorocarbons and perfluorocarbons). The primary sources of these GHG are as follows:

Carbon Dioxide

Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

Methane

Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

Nitrous Oxide

Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Fluorinated Gases

Hydrofluorocarbons (HCFCs), perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, HCFCs, and halons). These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as High Global Warming Potential gases.

Ozone

See above definition of Ozone.

Reactive Organic Gases

ROGs are photochemically reactive gases that play a role in ozone formation. This definition excludes methane, CO, CO_2, carbonic acid, metallic carbides or carbonates, ammonium carbonates, methylene chloride, methyl chloroform and various chlorofluorocarbons, but includes VOCs. VOCs are a group of carbon-containing compounds that evaporate readily at room temperature. Examples of VOCs include trichloroethane; trichloroethylene; and benzene, toluene, ethylbenzene, and xylene. These contaminants typically are generated from metal degreasing, printed circuit board cleaning, gasoline, and wood-preserving processes.

VOCs can cause, eye, nose, and throat irritation; headaches, loss of coordination, nausea; and damage to the liver, kidney, and central nervous system. Some organics can cause cancer in animals; some are suspected or known to cause cancer in humans. Key signs or symptoms associated with exposure to VOCs include conjunctival irritation, nose and throat discomfort, headache, allergic skin reaction, dyspnea, declines in serum cholinesterase levels, nausea, emesis, epistaxis, fatigue, and dizziness.

The ability of organic chemicals to cause health effects varies greatly from those that are highly toxic to those with no known health effect. As with other pollutants, the extent and nature of the health effect depends on many factors, including level of exposure and length of time exposed. Eye and respiratory tract irritation, headaches, dizziness, visual disorders, and memory impairment are among the immediate symptoms that some people have experienced soon after exposure to some organics.

Sulfur Oxides

Sulfur oxides refer to a group of highly reactive gasses that includes, SO, SO_2, SO_3 S_nO, S_7O_2, and S_6O_2. Among these gasses, SO_2 is the most common and typically used as an indicator for SO_x. The largest sources of SO_2 emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of SO_2 emissions include industrial processes such as extracting metal from ore, and the burning of high-sulfur-containing fuels by locomotives, large ships, and non-road equipment. SO_2 is linked with a number of adverse effects on the respiratory system.

Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory affects, including bronchoconstriction and increased asthma symptoms. These effects are particularly important for asthmatics at elevated ventilation rates (e.g., while exercising or playing).

Studies also show a connection between short-term exposure and increased visits to emergency departments and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics.

Nitrogen Oxides

The sum of nitric oxide and nitrogen dioxide is commonly called nitrogen oxides. Other oxides of nitrogen, including nitrous acid and nitric acid are part of the nitrogen oxide family. While the EPA's NAAQS covers this entire family, NO_2 is the component of greatest interest and the indicator for the larger group of nitrogen oxides. NO_2 forms quickly from emissions from cars, trucks, and buses; power plants; and off-road equipment. In addition to contributing to the formation of ground-level ozone and fine particle pollution, NO_2 is linked with a number of adverse effects on the respiratory system.

NO_x reacts with ammonia, moisture, and other compounds to form small particles. These small particles penetrate deeply into sensitive parts of the lungs and can cause or worsen respiratory disease such as emphysema and bronchitis, and can aggravate existing heart disease, leading to increased hospital admissions and premature death.

7.3.3.3 Hazardous Air Pollutants

Hazardous Air Pollutants (HAPS) are air contaminants that are known or suspected to cause acute, chronic, or carcinogenic effects to human health. They are known in some sources as TACs. According to the EPA Technology Transfer Network Air Toxics Web Site, almost 200 HAPs have been identified. The sources of HAPs are mostly of human origin, including refineries, automobiles, gasoline stations, and painting operations.

7.3.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to air quality significant if the project would:

- conflict with or obstruct implementation of the applicable air quality plan,
- violate any air quality standards or contributes substantially to an existing or projected air quality violation,
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors),
- expose sensitive receptors to substantial pollutant concentrations, and/or
- create objectionable odors affecting a substantial number of people.

To determine whether a project has the potential to obstruct implementation of the applicable air quality plans, contribute to potential air quality violations, or result in a cumulatively considerable net increase of a criteria pollutant for which the Air Basin is nonattainment, the SJVAPCD has established thresholds of significance for construction impacts, project

operations, and cumulative impacts. For construction impacts, the pollutant of greatest concern to the SJVAPCD is PM_{10}. The SJVAPCD recommends that significance be based on a consideration of the control measures to be implemented during project construction. According to the SJVAPCD, compliance with Regulation VIII and implementation of appropriate mitigation measures to control PM_{10} emissions are considered to be sufficient to render a project's construction-related impacts less than significant (GAMAQI, 2002).

The SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) also includes significance criteria for evaluating operational-phase emissions from direct and indirect sources associated with a project. Indirect sources include those covered under permit with the SJVAPCD. For this analysis, the proposed Targa project would be considered to have a significant effect on the environment if it would:

- cause a net increase in pollutant emissions of ROG or NO_x exceeding 10 tons per year,
- cause a violation of state CO concentration standards (The level of significance of CO emissions from mobile sources is determined by modeling the ambient concentration under project conditions and comparing the resultant 1- and 8-hour concentrations to the respective State CO standards of 20.0 and 9.0 parts per million.),
- frequently expose members of the public to objectionable odors, and/or
- expose the public to project-related toxic air contaminants in excess of the following thresholds:
  - probability of contracting cancer for the Maximally Exposed Individual exceeds 10 in one million,
  - ground-level concentrations of non-carcinogenic TACs would result in a Hazard Index greater than 1.

Lastly, any project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. Impacts of local pollutants are cumulatively significant when modeling shows that the combined emissions from the project and other existing and planned projects in the area would exceed air quality standards.

7.3.5 Impacts and Mitigation Measures

Impacts of the proposed Targa project related to air quality were addressed in Section 3.3: Air Quality of the 2006 Pacific Ethanol EIR. Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented below. The proposed Targa project is within the scope of the air quality analysis presented in the 2006 Pacific Ethanol EIR, and there are no changed circumstances since the preparation of this document that require reanalysis of cumulative impacts. In addition, the proposed Targa project is in accordance with the Port of Stockton West Complex Development Plan Final EIR, May 2004 (Port of Stockton Plan EIR), which incorporated this type of facility in future operations at the port. Finally, the

proposed Targa project area is consistent with the "industrial" land use designation found in the City of Stockton General Plan 2035 (City General Plan).

7.3.5.1 2006 Pacific Ethanol EIR Impacts

The following potential impacts were identified in the 2006 Pacific Ethanol EIR and are applicable to the proposed Targa project:

Impact #3.3.1 – Dust Related Particulate Matter (PM_{10}) and Fine Particulate Matter ($PM_{2.5}$) Construction Emissions

Impact #3.3.2 – Construction Emissions (Carbon Monoxide (CO), Reactive Organic Gases (ROG), Nitrogen Oxide (NO_x), Particulate Matter (PM_{10}), & Fine Particulate Matter ($PM_{2.5}$))

Impact #3.3.3 – Operational Air Emissions Impacts

Impact #3.3.4 – Odor Emissions

Impact #3.3.6 – Cumulative Air Quality Impacts

The 2006 Pacific Ethanol EIR found that PM_{10}/$PM_{2.5}$ emissions generated during construction would constitute a temporary potentially significant impact, possibly exposing receptors downwind to elevated PM_{10} concentrations and contributing to the regional PM_{10}/$PM_{2.5}$ emission burden. According to the SJVAPCD, compliance with Regulation VIII (Table 3.3-4) would reduce PM_{10}/$PM_{2.5}$ impacts to less than significant (see Section 4, Guide for Assessing and Mitigating Air Quality Impacts, SJVAPCD, January 10, 2002).

By incorporating Regulation VIII into the mitigation measures, the 2006 Pacific Ethanol EIR calculated NO_x, ROG and PM_{10} emissions below applicable thresholds, and concluded a less-than-significant impact. CO emissions are less than significant because the applicable source, vehicular emissions, is not substantial enough according to the SJVAPCD guidelines.

The 2006 Pacific Ethanol EIR review of operational emissions of ROGs from the project constituted a significant project impact. NO_x emissions were reduced by the mitigation measures adopted for the project. CO emissions were determined less than significant because the applicable source, vehicular traffic, was not substantial enough according to SJVAPCD guidelines. PM_{10} emissions were also below the applicable threshold.

The 2006 Pacific Ethanol EIR found that the project would result in a cumulative significant impact to air quality, and the Board of Commissioners adopted Overriding Considerations for cumulative air quality impacts. Because project-level operational ROG emissions were found to be significant (refer to Impact 3.3.3 in the 2006 Pacific Ethanol EIR), the project resulted in a significant and cumulative impact finding for ROG emissions, which could not be mitigated.

Targa Stockton Terminal Project vs. Port and Pacific Ethanol Air Emission Impact Comparisons

Tables 7.3-7 through Table 7.3-10 compare the emissions of the proposed Targa project, Port of Stockton EIR, and the 2006 Pacific Ethanol EIR.

Table 7.3.7: Comparison of Emissions for Port of Stockton Development Plan EIR, Pacific Ethanol Project, and Proposed Targa Stockton Terminal Project

Emissions (tons/year)			
Project	**Nitrogen oxides**	**Reactive organic gases**	**Respirable particulate matter**
Targa Stockton Terminal Project	8.3	10.2	0.4
Pacific Ethanol Project	-16.86[a]	11.38	8.54
Port of Stockton Development Plan	391	39.1	33.6

a- Without emissions credits from locomotive emissions, the NO_x emissions from Pacific Ethanol would be 15.04

Table 7.3-8: Port of Stockton Development EIR Assumptions

Port of Stockton Development Plan EIR Assumptions for Activity Increases
1. Rail usage will increase from 12 to 20 per month
2. Daily trip increases of 8,848 transport trucks per day
3. Marine vessel increase from 20 to 150 per month

Table 7.3.9: Port of Stockton EIR and Proposed Targa project Activity Comparison

Activity Type	Increase from Port of Stockton EIR	Increase from Targa Stockton Terminal
Locomotive	8/month	3/month
Marine vessels	130/year	24/year
Transport trucks	8,849/day	345/day

Table 7.3.10: Operational Emissions of Port of Stockton Development Plan from EIR

Operational Emissions (tons per year)					
Pollutant	**SJVAPCD Thresholds**	**Area Sources**	**Traffic[b]**	**Maritime and Locomotive**	**Total**
Reactive organic gases	10	0.03	35.3	3.77	39.1
Nitrogen oxides	10	0.15	268	122	391
Respirable particulate matter	-	0.17	30.4	3.04	33.6

b- Includes trucks, motor vehicles, and heavy yard equipment

7.3.5.2 2006 Pacific Ethanol EIR Mitigation Measures

Mitigation Measure # 3.3.1
Compliance with measures outlined in Table 3.3-4

Table 3.3-4 Mandatory Control Measures for Construction, Excavation, Extraction, and Other Earthmoving Activities – Mitigation Measure #3.3-1

A. Pre-Activity:

A1: Pre-water site sufficient to limit Visible Dust Emissions (VDE) to 20% opacity
A2: Phase work to reduce the amount of disturbed surface area at any one time.

B. During Active Operations:

B1: Apply water or chemical/organic stabilizers/suppressants sufficient to limit VDE to 20% opacity
B2: Construct and maintain wind barriers sufficient to limit VDE to 20% opacity. If utilizing wind barriers, control measure B1 above shall also be implemented.
B3: Apply water or chemical/organic stabilizers/suppressants to unpaved haul/access roads and unpaved vehicle/equipment traffic areas sufficient to limit VDE to 20% opacity and meet the conditions of a stabilized unpaved road surface.

C. Temporary Stabilization During Periods Of Inactivity:

C1: Restrict vehicular access to the area
C2: Apply water or chemical/organic stabilizers/suppressants, sufficient to comply with the conditions of a stabilized surface. If an area having 0.5 acres or more of disturbed surface area remains unused for seven or more days, the area must comply with the conditions for a stabilized surface area as defined below:

Stabilized Surface: any disturbed surface area or open bulk material storage pile that is resistant to wind blown fugitive dust emissions. A surface is considered to be stabilized if it meets at least one of the following conditions:

- A visible crust; or
- A threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 centimeters per second or greater; or
- A flat vegetative cover of at least 50 percent that is attached or rooted vegetation; or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind; or
- A standing vegetative cover of at least 30 percent that is attached or rooted vegetation with a predominant vertical orientation;
- Or
- A standing vegetative cover that is attached or rooted vegetation with a predominant vertical orientation that is at least 10 percent and where the TFV is at least 43 centimeters per second when corrected for nonerodible elements; or
- A surface that is greater than or equal to 10 percent of nonerodible elements such as rocks, stones, or hard-packed clumps of soil.

D. Speed Limitations and Posting of Speed Limit Signs

D1: Limit the speed of vehicles traveling on uncontrolled unpaved access/haul roads within construction sites to a maximum of 15 miles per hour.

D2: Post speed limit signs that meet State and Federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance. At a minimum, speed limit signs shall also be posted at least every 500 feet and shall be readable in both directions of travel along uncontrolled unpaved access/haul roads.

E. Wind Generated Fugitive Dust Requirements

E1: Cease outdoor construction, excavation, extraction, and other earthmoving activities that disturb the soil whenever VDE exceeds 20% opacity. Indoor activities such as electrical, plumbing, dry wall installation, painting, and any other activity that does not cause any disturbances to the soil are not subject to this requirement.

E2: Continue operation of water trucks/devices when outdoor construction excavation, extraction, and other earthmoving activities cease, unless unsafe to do so.

Mitigation Measure # 3.3.2

To minimize emissions and thus reduce cumulative impacts, the following shall be implemented:

8. The idling time of all construction equipment used at the site shall not exceed ten minutes.

9. The hours of operation of heavy-duty equipment shall be minimized.
10. All equipment shall be properly tuned and maintained in accord with manufacturer's specification.
11. When feasible, alternative fueled or electrical construction equipment shall be used at the project site.
12. The minimum practical engine size for construction equipment shall be used.
13. When feasible, electric carts or other smaller equipment shall be used at the project site.
14. Gasoline-powered equipment shall be equipped with catalytic converters.

Mitigation Measure # 3.3.3
The following measures shall be implemented:

- Use energy efficient building designs including automated control system for heating/air conditioning and energy efficiency, utilize energy-efficient lighting in buildings and use light colored roof materials to reflect heat.

- Purchase low-emission, alternatively-fueled or electrically-driven, maintenance vehicles and equipment.

- Implement a carpool/vanpool program, e.g., carpool ride-matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.

- Coordinate with local transit operators to extend or expand service to the project area.

Note: BACT features utilized to meet SJVAPCD requirements are outlined in Table 3.3-9. Other features including, but not limited to, CO_2 recovery plants, vent filters, centrifugal separators, vapor recovery systems, and tank ultraseals shall be installed and maintained as required by the SJVAPCD (Appendix C – Prototype Terminal Facility Development and Site Plan) as design and operational features.

7.3.5.3 Targa Stockton Terminal Project-specific Impacts

Construction Emissions

Construction of the proposed Targa project is anticipated to begin in summer 2012 and is expected to last a period of 12 to14 months. The construction phases consist of final grading and site staking; excavation and site work; trenching; building of structural facilities; installing electrical, process mechanical, and instrumentation equipment; paving and striping; and finally architectural coating.

The emissions for the construction of the proposed Targa project at the Port of Stockton were estimated using URBEMIS (urban emissions) 2007, Version 9.2.4. Information concerning project construction has been gathered from the Targa prototype Terminal and Site Design Report (see Appendix C). The relevant construction specifications and assumptions for use in URBEMIS are provided in Tables 7.3-11 and 7.3-12.

The construction-related emissions estimates and SJVAPCD thresholds of significance are provided in Table 7.3-12. The data output files generated by URBEMIS are provided in Appendix F.

Table 7.3-11: General Construction Assumptions

Specifications	Assumptions
Site area (acres)	19.92
Construction start date	June 1, 2012
Construction duration	12 months
Hours per day	8
Days per week	5

Table 7.3-12: Phase-specific Construction Assumptions

URBEMIS Phase Name	Dates	Description	Equipment Used	Worker Trips
Fine Grading	5/1/12 - 6/1/12	Rough Grading and Site Staking	Default URBEMIS Fine Grading Equipment	Default
Mass Grading	6/1/12 – 7/1/12	Excavation and Sitework	2 Excavators, 2 Tractors/Loaders/Backhoes, 1 General Industrial Equipment, 1 Roller	Default
Trenching	7/1/12 – 8/1/12	Trenching for Port of Stockton Pipeline	Default URBEMIS Trenching Equipment	Default
Building Construction	8/1/12 – 3/1/13	Building of Structural Facilities and Installing of Process Instrumentation	3 Forklifts, 1 Aerial Lift, 1 Cement and Mortar Mixer, 1 Crane, 4 Material Handling Equipment, 1 Welder	75/day
Paving	3/1/13 – 4/1/13	Paving and Striping	Default URBEMIS Paving Equipment	Default
Architectural Coating	4/1/13 – 5/1/13	Architectural Coating	Default URBEMIS Architectural Coating Equipment	Default

Table 7.3-13: Construction Emissions Estimates

Pollutant	URBEMIS Estimate (tons/year)	Thresholds of Significance
Reactive organic gases	5.24	10 tons/year
Nitrogen oxides	7.23	10 tons/year
Respirable particulate matter (PM_{10})	1.50	15 tons/year
Particulate matter ($PM_{2.5}$)	0.51	15 tons/year
Carbon monoxide	6.26	SJVAPCD Regulation VIII
Carbon dioxide	1387.29	None

Construction Impacts

According to the SJVAPCD's Guidelines for Assessing and Mitigating Air Quality Impacts (2002), the thresholds of significance for construction-related ozone precursors (NO_x and ROG) are calculated on a yearly basis and should not exceed 10 tons/year. The URBEMIS estimates for the proposed Targa project's construction-related NO_x and ROG fall below the thresholds.

Fugitive particulate matter emissions (PM_{10}) are the greatest pollutant of concern for a project's construction emissions (GAMAQI, 2002). The PM_{10} emissions in tons/year have been quantified using URBEMIS, but there is no quantified threshold provided by the SJVAPCD. The GAMAQI states PM_{10} emissions are hard to predict and can vary greatly depending on several changing variables such as weather conditions, soil conditions, and the specific activity taking place. To address the temporary issue of fugitive dust emissions from a proposed Targa project's construction activity, the SJVAPCD mandates compliance with Regulation VIII. The Regulation VIII requirements are incorporated into Mitigation Measure #3.3.1 in the 2006 Pacific Ethanol EIR, which is above. The proposed lease area is surrounded by a 10-foot-high railroad bed, which would provide a natural mitigation by blocking the wind carrying fugitive dust emissions.

Operational Emissions

The operational emissions were evaluated for the proposed Targa project at projected 2017 operating capacity. Operational emissions sources include locomotive, storage tanks, OGVs, employee vehicle traffic, and trucking. Emissions from the five sources are summed and compared to thresholds of significance and used to address CEQA guidelines. Mitigation measures are recommended where necessary.

Locomotive Emissions

Locomotive emissions were estimated using the EPA Emission Standards document for manufactured and newly remanufactured locomotives that was released in April 2009. This EPA document provides emission factors for line-haul and yard activity. These were applied to anticipated operating activity to generate emissions estimates. The proposed Targa project would use hybrid electric locomotives for all yard activity, which would reduce emissions within the yard to negligible. Assumptions used for the calculation were based upon site design specifications and typical locomotive characteristics. These assumptions are provided in Table 7.3-14. The calculated locomotive emissions are provided in Table 7.3-15. The calculation spreadsheets are provided in Appendix F: Air Quality URBEM IS Technical Information.

Table 7.3-14: Locomotive Assumptions

Specifications	Assumptions
Incoming/Outgoing Trains	
Trains per year	36
Line engines per train	2
Line engine horsepower	4,400 bhp
Emission controls	Tier III
Distance traveled in air basin	25 miles
Average travel speed	45 miles per hour
Travel time in air basin (roundtrip)	1.11 hours
Total travel time of all engines (x2)	2.22 hours
Annual operating hours	79.92 hours
Unloading Trains	
Unloading time per train	24 hours
Locomotives per train	1
Engine Power	Electric
Locomotive engine power	4,400 bhp
Operating hours per year (for all engines)	864 hours

Table 7.3-15: Locomotive Emissions Estimates for Incoming/Outgoing Trains

Pollutant	EPA Tier 3 Line Engine Emission Factors (g/bhp-hour)	Annual Emissions (tons/year)
Reactive organic gases	0.13	0.04
Nitrogen oxides	4.95	1.59
Respirable particulate matter	0.08	0.03
Carbon monoxide	1.28	0.41
Carbon dioxide	See Appendix F	198

The proposed Targa project would use electric locomotives for all yard activity, which would reduce potentially significant emissions (in excess of 10 tons/year NO_x; see Appendix F) resulting in a less-than-significant impact. Emissions from incoming and outgoing trains are also below thresholds of significance.

Storage Tank Emissions

Storage tank ROG emissions are the result of leaks and transfer losses that occur during the operation of the tanks. The emissions were estimated using the EPA TANKS 4.0.9d software, which utilizes equations developed by the API. The output files from the TANKS software is provided in Appendix F along with detailed calculation spreadsheets. The assumptions that were used in the calculation are provided in Table 7.3-16.

Table 7.3-16: Storage Tank Assumptions

Specifications	Assumptions
Regular gasoline reid vapor pressure (RVP)	7.8 pounds per square inch (psi)
Premium gasoline RVP	13.8 psi
Additive RVP	9 psi
B-20 and Diesel RVP	6 psi
Fuel tank color	White
Truck loading rack and drain-dry vapor recovery unit destruction efficiency	98 percent
The roofs of the tank are self supporting	
Total annual throughput for each fuel type is divided proportionately into tanks bases upon relative tank volume	

Swing tank throughput is equal to the average throughput of the other tanks of the same size
Emissions from the B-100 tank are negligible due to very low RVP of B-100

The estimated storage tank ROG emissions are provided on a tank-by-tank basis in Table 7.3-17.

Table 7.3-17: Storage Tank Emissions Estimates

Tank (T)	Product	Capacity (barrels)	Throughput (barrels/year)	Reactive Organic Gas Emissions (tons/year)
T-1	Bio-fuel (B100)	20,000	730,000	N/A
T-2	"Swing" tank	50,000	1,000,491	1.14
T-3	Additives	10,000	2,286	0.14
T-4	Additives	10,000	2,286	0.14
T-5	Trans mix	10,000	23,810	0.54
T-6	Ethanol	20,000	182,500	0.10
T-7	Ethanol	20,000	182,500	0.10
T-8	Ethanol	20,000	182,500	0.10
T-9	Ethanol	20,000	182,500	0.10
T-10	Crude oil	50,000	547,500	0.71
T-11	Crude oil	50,000	547,500	0.71
T-12	Crude oil	50,000	547,500	0.71
T-13	Crude oil	50,000	547,500	0.71
T-14	Crude oil	50,000	547,500	0.71
T-15	Ethanol	80,000	730,000	0.19
T-16	Low-sulfur diesel	80,000	1,697,250	0.16
T-17	Regular gasoline	50,000	2,326,875	1.15
T-18	Premium gasoline	50,000	1,939,063	2.05
T-19	Bio diesel (B-20)	80,000	1,697,250	0.16
T-20	Ultra-low-sulfur diesel	80,000	1,697,250	0.16
			Total	**9.80**

The proposed Targa Stockton Terminal tank design exceeds the SJVAPCD BACT Guideline of 95 percent by achieving 98 percent ROG control. This would occur through a performance

guarantee contract agreement with the supplier. The above emissions calculations were completed with the following mitigating designs factored into the calculations.

Trucking Emissions

The trucking emissions were calculated for trucks picking up fuel and distributing to the area bulk distribution centers using the CARB distributed EMFAC2007 V2.3 (2006) software, which provides emission factors based upon truck weight class and odometer mileage. The EMFAC2007 data output files are provided in Appendix F. The assumptions that were used in the trucking calculations are provided in Table 7.3-18. The estimated trucking emissions are provided in Table 7.3-19.

Table 7.3-18: Trucking Assumptions

Specifications	Assumptions
Number of trucks arriving per day	345 trucks
Average round-trip mileage	20 miles
Average truck capacity	4,200 gallons
Average truck weight class	7 medium heavy duty
Average odometer mileage of trucks	50,000 miles
Truck model year	2010

Table 7.3-19: Trucking Emissions Estimates

Pollutant	Emission Factor (gallons/mile)	Annual Emissions (tons/year)
Reactive organic gases	0.024	0.07
Nitrogen oxides	0.512	1.42
Respirable particulate matter	0.030	0.08
Carbon monoxide	0.379	1.05
Carbon dioxide	1327.315[a]	3684.87

[a]Emission factors for model year 2011 were unavailable for CO_2. Emission factors from 2009 were used.

Truck traffic associated with the proposed Targa project would not produce significant emissions. To further reduce emissions form truck traffic some additional mitigation measures have been identified for the proposed Targa project.

Ocean-going Vessel (OGV) Emissions

Products arriving from OGVs at the Port would also factor into the operational emissions of the proposed Targa project. Guidance for estimating these emissions was found in the EPA's *Current Methodologies in Preparing Mobile Source Port Related Emissions Inventories* (2009) and from the *Ocean Going Vessels Calculations* substitute for the Diesel Emissions Quantifier, which is found on the EPA's website. A mix of vessel-based and activity-specific emission factors were used in combination with project-related assumptions to estimate the emissions. For the purposes of this air impact analysis and simplifying emissions calculations, the ships were assumed to be 100 percent tankers. This is a conservative estimate. A full list of assumptions can be found in Table 7.3-20. The OGV emissions results at 2017 build-out level are provided in Table 7.3-21.

Table 7.3-20: Ocean Going Vessel Assumptions

Specifications	Assumptions
Vessel type	100 percent tankers
Vessels per Year	24
Distance of travel in SJVAPCD (miles)	30
Speed of tankers in district (knots)	6
Engine type	Slow-speed diesel
Fuel usage	Marine diesel oil

Table 7.3-21: Ocean Going Vessel Emissions Estimates

Pollutant	Propulsion Engine Emission Factor (g/kw*hr)	Auxiliary Engine Emission Factor (g/kw*hr)	Annual Emissions (tons/year)
Reactive organic gases	0.60	0.40	0.21
Nitrogen oxides	17.00	13.90	5.03
Respirable particulate matter	0.45	0.49	0.16
Carbone monoxide	1.40	1.10	0.49
Carbon dioxide	588.79	690.71	211

A data output file for the OGV emissions calculations can be found in Appendix F. The emission factor-based calculations were prepared using methodology found in the EPA's *Current Methodologies in Preparing Mobile Source Port Related Emissions Inventories* (2009).

The net emissions calculated for the OGVs take into account the tanker's activity inside as soon as it enters and until it exits the SJVAPCD. The contributing activity modes are the "reduced speed zone" travel of the vessel as it navigates the waterways leading to the Port and the maneuvering mode that occurs when the vessel positions at the dock. Emissions are produced by both the main engine, which controls propulsion, and by the auxiliary engines, which power and heat the ship. The emissions at berth and during unloading were assumed to be negligible due to the installation of Alternative Marine Power (AMP) at the docks. AMP would allow the tankers to shut down both engines while at berth.

Employee Vehicle Traffic Emissions

The emissions associated with employees commuting to and from work were computed using URBEMIS 2007 Version 9.2.4. The assumptions are listed in Table 7.3-22. The detailed URBEMIS-generated annual summary is in Appendix F.

Table 7.3-22: Vehicle Traffic Assumptions

Specifications	Assumptions
Employees	30
Air district	SJVAPCD
Analysis year	2017
Land use type	General Light Industry

The annual employee-vehicle traffic emissions are shown in Table 7.3-23.

Table 7.3-23: Employee Vehicle Traffic Emissions Estimates

Pollutant	Annual Emissions (tons/year)
Reactive organic gases	0.11
Nitrogen oxides	0.16
Respirable particulate matter	0.12
Carbon monoxide	1.04
Carbon dioxide	145

Operations Impacts

A summary of the estimated operational emissions split by pollutant and operational category at the 2017 operating capacity of the proposed Targa project is shown in Table 7.3-24. The proposed Targa project's total yearly operational emissions by pollutant and a comparison with the related SJVAPCD threshold are presented in Table 7.3-25.

Table 7.3-24: Operational Emissions without Suggested Mitigation (Tons/Year)

Pollutant	Locomotive	Storage Tanks	Trucking	OGV	Employee Vehicle Traffic
Type of source	Mobile	Stationary	Mobile	Mobile	Mobile
Reactive organic gases	0.05	9.80	0.07	0.21	0.11
Nitrogen oxides	1.92	0	1.42	5.03	0.16
Respirable particulate matter	0.03	0	0.08	0.16	0.12
Carbon monoxide	0.50	0	1.05	0.49	1.04
Carbon dioxide	198	0	3684.87	211	145

Table 7.3-25: Overall Operational Emissions

Pollutant	Overall Operational (Tons/Year)	SJVAPCD Threshold
Reactive organic gases	10.2	10 tons/year
Nitrogen oxides	8.5	10 tons/year
Respirable particulate matter	0.4	SJVAPCD Regulation VIII
Carbon monoxide	3.1	CAAQS
Carbon dioxide	4239.6	None

a – 9 parts per million (ppm) averaged over 8 hours and 20 ppm for 1 hour considered a significant impact

Table 7.3-24 shows the project has stationary emissions and mobile source (indirect) emissions. CEQA considers the sum of all stationary and indirect sources when determining the significance of a project's impact to air quality.

For ROG, the proposed Targa project operational emissions exceed the SJVAPCD threshold of significance offered in the GAMAQI. For NO_x, the proposed Targa project falls below the quantified threshold of significance. A threshold of significance is not quantified for PM_{10} but the proposed Targa project must comply with District Regulation VIII. The SJVAPCD does not quantify a threshold of significance for CO; however, projects that cause a violation of the CAAQS would be considered to have a significant impact.

Methods are offered in the GAMAQI to determine significance of CO impacts by conducting a traffic study. Methods are offered in the GAMAQI to determine significance of CO impacts by conducting a traffic study. No threshold of significance is offered by the SJVPACD for CO_2; however, implementation of Best Performance Standards (BPS) can be used to achieve insignificant project-specific GHG emissions impacts on global climate change. These impacts are discussed in the responses to the CEQA Guidelines in Section 7.3.6

7.3.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

In addition to the fugitive dust control mandated by Regulation VIII and incorporated from the 2006 Pacific Ethanol EIR, the following mitigation measures would be implemented to control PM_{10} emissions:

AQ-1 Install wheel washers for all exiting trucks and equipment leaving the site.
AQ-2 Suspend excavation and grading activity when sustained winds exceed 20 miles per hour or when gusts exceed 25 miles per hour.

Although the NO_x, CO, and CO_2 emissions for the construction period are within the thresholds of significance, the following mitigation measures would further reduce emissions:

AQ-3 Use alternative fuel or catalyst-equipped diesel construction equipment.
AQ-4 Minimize idling time (e.g., 10-minute maximum)
AQ-5 Replace fossil-fueled equipment with electrically driven equivalents when possible.
AQ-6 Limit or curtail construction activity during periods of high ambient pollution.

All storage tanks constructed at the Targa Stockton Terminal would have the following design factors incorporated to reduce emissions:

AQ-7 Internal Floating Roofs (IFR) – Emissions are controlled by preventing vapors from being formed along the liquid surface by floating the roof directly on the stored petroleum product minimizing the area of interface between the product and the air within the tanks.

AQ-8 Primary and Secondary Roof Seals – The seals prevent emissions from escaping from between the IFR and the tank shell. The primary seal is a metallic band (called a shoe) attached to the floating roof. The shoe slides in contact with the tank shell as the level of product in the tank rises and falls. The secondary seal is mounted above the primary seal. Secondary seals further reduce vapor losses from the gaps between the metallic shoe and tank shell.

AQ-9 Drain Dry Design – A drain-dry tank can be completely drained of product using the standard pumping systems such that when changing between different product types the tank does not need to be cleaned as often.

AQ-10 Drain Dry Vapor Recovery Unit – Vapors associated with the drain-dry operations would be extracted and condensed through a PURGIT air pollution condensors control system.

AQ-11 Truck Loading Rack Vapor Recovery Unit – A John Zink Hydrocarbon Vapor Recovery Unit (VRU) would be installed to reduce ROG emissions from the Truck Loading Rack Canopy to 0.08 pounds or less per thousand gallons of organic liquid loaded at the loading racks. The VRU meets SJVAPCD Rule 4624, 5.0 requirements for the Stockton area.

To further reduce truck traffic emissions at the proposed Targa project the following mitigation measures have been provided:

AQ-12 Reduce unnecessary idling usually needed to maintain climate control in the cab of trucks by offering electric power options.
AQ-13 Equip trucks with NO_x reduction catalyst systems
AQ-14 Install efficient pumps to expedite fuel truck loading and unloading
AQ-15 Implement scheduling strategies such that truck traffic is evenly dispersed throughout the day and avoids rush hour times.
AQ-16 Instruct drivers regarding improved acceleration practices, shifting techniques, and route choice.

7.3.6 Air Quality Initial Study Responses

Table 7.3-26: Air Quality Initial Study Responses

WOULD THE PROPOSED PROJECT:	Potentially Significant Impact	Less-than-significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less-than-significant Impact	No Impact
AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☑	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☑	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☑	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☐	☑
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☐	☑

7.3.7 Responses to Initial Study Questions

7.3.7.1 Air Quality Plan: Impact for Which 2006 Pacific Ethanol EIR is Sufficient

The SJVAPCD has adopted and periodically revises an Attainment Plan that addresses PM10, ozone and ozone precursors, (NOx and ROGs). Along with the Attainment Plan, the City of Stockton has outlined measures in their 2035 General Plan and EIR to reduce criteria pollutants. The Port also calls for measures to reduce criteria pollutants with the Port of Stockton Development Plan and EIR. The combined effect of the above plans ensures that when incorporated into subsequent projects, they will avoid or reduce impacts and result in reasonable further progress toward attainment with air quality standards over time. The SJVAPCD has air quality plans set in place to reduce emissions and meet and maintain attainment status of the NAAQS and CAAQS.

Plans are in place for those pollutants for which the district is in nonattainment of federal standards (ozone, $PM_{2.5}$) or for which they recently achieved attainment status (CO). The SJVAPCD has a plan for Climate Change Action Plan (CCAP) that is available on their website. Compliance with the SJVAPCD regulations will ensure that the proposed Targa project will not conflict with or obstruct implementation of the air quality improvement plans.

The proposed Targa project would have no impact to the SJVAPCD's Air Quality Plan because it would not create or cause adverse impacts or alter the current ambient air quality status. The proposed Targa project would adhere to the Air Quality Plan by providing relevant and economically feasible mitigation measures as conditional requirements. Monitoring would be conducted as prescribed by permit conditions to ensure compliance.

The proposed Targa project is consistent with the Pacific Ethanol Project in both type of operation and quantified air emissions. The proposed Targa project would carry out the transshipment and storage phase of the 2006 Pacific Ethanol Project that was approved with an overriding consideration for significant air quality impacts associated with ROG emissions. The proposed Targa project would reduce the estimated emissions from the previously approved Pacific Ethanol Transshipment and Storage Project.

Also, the proposed Targa project is in accordance with projected future operations within the Port of Stockton, which are identified in the Port of Stockton Plan EIR. Both of these projects were approved and accounted for in the City 2035 General Plan EIR. Because the proposed Targa project has an emissions budget on the same level of magnitude as projects already approved for the proposed lease area with regard to air emissions, it would have no impact on the various plans of the City, County, Port, nor Region. Therefore, there would be no impact for which the 2006 Pacific Ehtanol EIR had not previously addressed and mitigated. There are no new reseasonable mitigation measures that can be applied that have not already previously been applied as identified in the 2006 Pacific Ethanol EIR.

7.3.7.2 Air Quality Violation: Less than Significant with Mitigation

Air quality violations could occur due to construction or operational emissions. During construction, the emissions for ozone precursors NO_x and ROG are below the yearly threshold and, therefore, pose no significant impact. PM_{10} would have no impact due to the proposed Targa project conformity with SJVAPCD Regulation VIII for PM_{10} violations.

Operations at the proposed Targa project would have ROG emissions due to storage tanks and NO_x, ROG, CO, and PM_{10} emissions due to the incoming shipments and outgoing deliveries of fuel products via OGVs, tractor trucks, and locomotives. PM_{10} emissions would not exceed the SJVAPCD threshold of significance. The potential for a CO violation is discussed in Section 7.3.7.1.

The emissions of ozone precursors NO_x and ROG are estimated to be on a level very near the thresholds of significance set by the SJVAPCD. Ozone violations are typically the result of a peak period in emissions of NO_x and ROG. For example, many ozone violations occur in the

afternoon of sunny days following morning "rush hour" traffic which emits large amounts of NO_x. Because the proposed Targa project would operate 24 hours a day and 7 days a week, its emissions would be incrementally distributed. Because the emissions would be evenly distributed over the course of a day (without a peak perriod), the emissions at any given time are limited, and therefore, within prescribed regulations. Mitigation measures would be implemented as needed. Therefore, air quality violations are less than significant with mitigation.

7.3.7.3 Cumulative Air Quality Impacts: Less than Significant

The SJVAPCD GAMAQI addresses cumulative air quality impacts for ozone, PM_{10}, CO, and HAPs. Cumulative air quality impacts occur when two or more related individual impacts compound to create a net significant impact. For ozone precursors NO_x and ROG, the GAMAQI recommends cumulative impacts are based on thresholds of significance.

For PM_{10}, the GAMAQI recommends lead agencies examine PM_{10} exposure to sensitive receptors during earth-disrupting activities by the proposed Targa project and any other projects that may occur in the surrounding area at the same time. Since all projects within the SJVAPCD must comply with Regulation VIII for PM_{10} control and sensitive receptors are not in close proximity to the lease area or in the path of prevailing winds, this is considered a less-than-significant impact.

Cumulative effects from other activities in the Port would have been considered in the Port of Stockton EIR. Therefore, no additional mitigation measures will be required.

7.3.7.4 Sensitive Receptors: No Impact

The SJVAPCD GAMAQI, Section 3, defines a sensitive receptor as a location where there is a reasonable expectation of continuous human exposure to pollutants. Sensitive receptors are usually evaluated for more acute, localized pollutants (PM_{10}, SO_2, hydrogen sulfide) rather than regional pollutants such as ozone precursors (NO_x and ROG).

There are two sensitive receptors within a 1-mile radius of the proposed facility:

- City Gardens Mobile Home Park is located on the north side of the port waterway. The mobile home park is approximately 4320 feet northeast of the nearest tank, and approximately 1525 feet from Berth #9.

- George Washington Elementary School is 1.5 miles east of the lease area (1.2 miles from the proposed lease area's outermost border).

The only significant stationary-source emissions from the proposed Targa project are from the storage tanks. These emissions are above the threshold of 10 tons per year of ROG. However, these ROG emissions are recognized more for their activity in ozone formation and not known for their risks to human health. Also, the favorable winds at the proposed lease area are from the

north so it is unlikely that fugitive ROG emissions would ever reach the sensitive receptors located north and east of the proposed lease area.

Carbon monoxide is the main pollutant of concern for mobile sources in the area. The traffic study indicates the proposed Targa project would not reduce the Level of Service of any intersection within the region and, thus, no CO hotspots were identified. As no CO hotspots and no ROG emissions were noted within sensitive receptor areas, there will be no impact on such areas from the proposed Targa project.

7.3.7.5 Objectionable Odors: No Impact

Emissions and odors from the storage tanks would be controlled with the BACT outlined in the mitigation measures. Odors from the diesel engines operating on the OGVs, trucks, and Locomotives would be negligible due to their distances from sensitive receptors, spatial and temporal distribution due to constant movement, and idling restrictions enforced by the mitigation measures and the SJVAPCD. As such the proposed Targa project poses no impact on creating objectionable odors.

7.4 BIOLOGICAL RESOURCES

This section describes existing biological resources, including native and nonnative habitats, special-status communities, and special-status plant and animal species, and analyzes the project's potential effects on these resources that may occur with the implementation of the proposed Targa project. The affected environment, including a regional overview of vegetation, sensitive plant communities, wetlands, wildlife, economically important wildlife species, and special-status species is presented. This section also discusses methods and results of biological field surveys of the proposed lease area, Berth #9, pipeline route, and laydown area. This section addresses the effects that construction and subsequent operation of the proposed Targa project may have on special-status plant and animal species, and sensitive habitats. Mitigation measures from the 2006 Pacific Ethanol EIR to reduce potential impacts to a less than significant level would be applied to this project. There are no undisturbed, natural habitats on the proposed lease area, Berth #9, pipeline route, or laydown area as defined in Sections 1702 (q) and (v) of Title 20 of the California Code of Regulations.

7.4.1 Background

7.4.1.1 Regulatory Context

Federal Regulations

Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (FESA) in 1973. FESA protects plants and wildlife that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Section 9 of FESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR §17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land, and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of State law (16 USC 1538). Under Section 7 of FESA, federal agencies are required to consult with the USFWS and/or NMFS if their actions, including permit approvals or funding, could adversely affect an endangered plant or wildlife species or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS and/or NMFS may issue an incidental take statement allowing take of a species that is incidental to another authorized activity, provided the action would not jeopardize the continued existence of any federally listed species or result in the destruction or adverse modification of habitat of such species. Section 10 of FESA provides for issuance of incidental take permits to private parties without a federal nexus provided a habitat conservation plan is developed.

Federal Clean Water Act

The purpose of the Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States without a permit from the U.S. Army

Corps of Engineers (Corps). In addition, Section 401 of the CWA (33 USC 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards. A Water Quality Certification or waiver pursuant to Section 401 is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board.

"Discharges of fill material" are defined as the addition of fill material into waters of the United States, including, but not limited to, the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and subaqueous utility lines [33 CFR §328.2(f)]. The definition of waters of the United States includes rivers, streams, estuaries, the territorial seas, ponds, lakes, mudflats, sandflats, sloughs, wet meadows, and wetlands. Boundaries between jurisdictional waters and uplands are determined in a variety of ways depending on which type of waters is present. Methods for delineating wetlands and non-tidal waters are described below.

- Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 CFR §328.3(b)]. Presently, to be a wetland, the feature must exhibit three wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology existing under the normal circumstances for the site.

- The lateral extent of non-tidal waters is determined by delineating the ordinary high-water mark [33 CFR §328.4(c)(1)]. The ordinary high-water mark is defined by the Corps as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 CFR §328.3(e)].

Migratory Bird Treaty Act

The federal MBTA, first enacted in 1916, prohibits any person, unless permitted by regulations, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatsoever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird included in the terms of this Convention . . . for the protection of migratory birds . . . or any part, nest, or egg of any such bird." (16 USC 703). As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal.

The list of migratory birds includes nearly all bird species native to the United States. In the MBTA 2004, further defined species protected under the Act and excluded all non-native species. The statute was extended in 1974 to include parts of birds, as well as eggs and nests. Thus, it is illegal under the MBTA to directly kill, or destroy a nest of, nearly any bird species, not just endangered species. Activities that result in removal or destruction of an active nest (a nest with eggs or young being attended by one or more adults) would violate the MBTA. Removal of unoccupied nests, or bird mortality resulting indirectly from disturbance activities, is not considered a violation of the MBTA.

State Regulations

California Environmental Quality Act

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into the regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant under CEQA such a case occurs when impacts result in an adverse alteration of existing conditions, but do not substantially diminish, or result in the permanent loss of, an important resource on a population-wide or region-wide basis.

California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA directs agencies to consult with the California Department of Fish and Game (CDFG) on projects or actions that could affect listed species, directs the CDFG to determine whether jeopardy would occur, and allows the CDFG to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. CESA generally parallels the main provisions of FESA, but unlike its federal counterpart, CESA applies the “take” prohibitions to species proposed for listing (called candidates by the State). “Take” is defined in Section 86 of the California Department of Fish and Game (CFG) Code as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Section 2080 of the CFG Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. CESA allows the CDFG to authorize exceptions to the state’s prohibition against take of a listed species (except for designated fully protected species) if the take of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (CFG Code § 2081).

Fully Protected Species

The State of California first began to designate species as fully protected prior to the creation of CESA and FESA. Lists of fully protected species were initially developed to provide protection to those species that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under CESA and/or FESA. The regulations that implement the Fully Protected Species Statute (CFG Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, the CDFG prohibits any State agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

California Species of Concern

In addition to formal listing under FESA and CESA, some species receive additional consideration by the CDFG and lead agencies during the CEQA process. Species that may be considered for review are included on a list of species of special concern, developed by the CDFG. The list tracks species in California whose numbers, reproductive success, or habitat may be in decline.

California Fish and Game Code

Section 3503.5 of the CFG Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Disturbance activities that result in abandonment of an active bird-of-prey nest in areas adjacent to the disturbance may also be considered a violation of the CFG Code.

California Native Plant Protection Act and California Native Plant Society

The California Native Plant Protection Act of 1977 (CFG Code Sections 1900-1913) affords the California Fish and Game Commission the authority to designate native plants as endangered or rare and protects such endangered or rare plants from take. In addition, plants that are not State-listed, but meet the standards for listing are also protected under CEQA (CEQA Guidelines, Section 15380). The California Native Plant Society (CNPS) maintains a list of plant species native to California that have low population numbers, limited distribution, or are otherwise threatened with extinction. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The definitions for each of the CNPS listings are below:

- List 1A: Plants presumed extinct in California
- List 1B: Plants rare, threatened, or endangered in California and elsewhere
- List 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere
- List 3: Plants about which we need more information — A review list
- 0.1: Plants are seriously endangered in California
- 0.2: Plants are fairly endangered in California
- 0.3: Plants are not very endangered in California

California Lake and Streambed Alteration Agreement

Sections 1600 through 1616 of the CFG Code require that a Lake and Streambed Alteration Program Notification Package be submitted to the CDFG for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFG reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal on which the CDFG and the applicant agree is the Lake and Streambed Alteration Agreement. Often, projects that require a Lake and Streambed Alteration Agreement also require a permit from the Corps under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Lake and Streambed Alteration Agreement may overlap.

Local Regulations

City of Stockton Heritage Tree Ordinance

The City regulates the removal of heritage trees on private and public property (Stockton Municipal Code Chapter 16.130). A heritage tree is defined as all valley oaks (*Quercus lobata*), coast live oaks (*Quercus agrifolia*), and interior live oaks (*Quercus wislizenii*) with a trunk diameter of 16 inches or greater (measured 24 inches above grade). For multiple-trunk trees of the species listed above, the combined total diameter of all trunks 6 inches or greater shall be used to determine if they meet the 16-inch threshold.

San Joaquin County Multi-species Habitat Conservation Plan

The City of Stockton participates in the San Joaquin County Multi-species Habitat Conservation Plan (SJMSCP), which provides a way to balance the conservation of open-space areas with the need for development within the County. The SJMSCP covers impacts to biological resources pursuant to CEQA, the California Endangered Species Act, and the FESA, and is approved and authorized by the CDFG and USFWS. Participation in the SJMSCP streamlines the permitting and mitigation process in the event biological resources would be impacted. Due to its location within the City, the proposed Targa project is located within the "no pay zone" according to the SJMSCP habitat maps. This means there is no fee for project proponents in this area to participate in the program.

7.4.1.2 Required Permits and Approvals

No biological resource permits are required for the proposed Targa project.

7.4.2 Methodology

7.4.2.1 Literature Review

Prior to performing the biological field survey, documentation relevant to the lease area, pipeline route, Berth #9, and surrounding area was reviewed and a special-status species list was prepared for the project. The special-status species list includes species identified from record searches for the U.S. Geological Survey 7.5-minute Stockton West, Stockton East, Manteca, Lathrop, Union Island, Holt, Terminous, Lodi South, and Waterloo topographic quadrangles. Special-status

species include all federally and State-listed endangered and threatened species, candidates for listing, species proposed for listing, fully protected species, State species of concern, species protected under other regulations (e.g., MBTA), species listed as rare or endangered by the CNPS, and species that receive special consideration during environmental review under CEQA.

Sources of information that were used to compile the species list included the USFWS and NMFS endangered species lists, the CDFG California Natural Diversity Data Base (CNDDB), and the CNPS species lists (online version) for the quadrangles listed above.

7.4.2.2 Field Surveys

TRC Biologist Michael Farmer conducted a field survey of the lease area, pipeline route, Berth #9 and laydown area, on August 2, 2011. The project locations were systematically surveyed on foot to identify all sensitive habitats and determine the potential for the project locations to support each special-status species identified from the record searches. Each species' potential for occurrence was based on the presence or absence of general habitat requirements (nesting or foraging habitat, specific soil type, permanent water source, etc.). During the field survey, all biological communities were characterized and the observed plant and wildlife species were recorded.

7.4.3 Environmental Setting

The approximately 19.92-acre proposed lease area and laydown area is comprised of relatively level land that was graded as part of the construction activities for the Pacific Ethanol Production and Transshipment Facility. A large, man-made drainage ditch is adjacent to and runs parallel with the existing railroad tracks along the northern and eastern site boundaries. The ditch was completely dry during the survey and appears to collect stormwater runoff from the site and Pacific Ethanol Production Facility. The location appeared to have been mowed several months prior to the field survey as evidenced by cut vegetation throughout the property and new vegetation growth interspersed across the property. Most of the new vegetation was dead or stressed with twisted and curled leaves and stems, indicating that herbicides may also be used for vegetation management purposes.

Due to vegetation management activities on the properties, most of the land was devoid of vegetation during the field survey. Based on the remnants of the mowed vegetation and subsequent plant growth, the vegetation is dominated by milk thistle (*Silybum marianum*) and Russian thistle (*Salsola tragus*). Both species are common ruderal (weedy) species typically found growing in disturbed places. The only other plant species that were identifiable during the survey included yellow star-thistle (*Centaurea solstitialis*), ryegrass (*Lolium* sp.), field mustard (*Brassica rapa*), prickly lettuce (*Lactuca serriola*), wild radish (*Raphanus sativus*), cudweed (*Gnaphalium* sp.), and salt heliotrope (*Heliotropium curassavicum*). The entire proposed lease area and laydown area lacks trees and shrubs. Likewise, Berth #9 area is devoid of vegetation as it is constructed of impervious surfaces (concrete and asphalt) and houses industrial buildings. The public ROW that would be used for the proposed pipeline is also devoid of vegetation.

Observed wildlife activity at the locations, was very limited during the field survey, most likely because of the disturbed nature of the site and lack of habitat diversity. Wildlife species noted during the site inspection were limited to black-tailed jackrabbit (*Lepus californicus*), western fence lizard (*Sceloporus occidentalis*), pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), and Swainson's hawk (*Buteo swainsoni*). Additionally, multiple burrows were observed throughout the site and appear consistent with ground squirrel (*Spermophilus beecheyi*) burrows and other small rodents such as California vole (*Microtus californicus*), although no squirrels or voles were seen.

7.4.3.1 Special-status Species

As discussed above, the special-status plant and wildlife species analyzed for the proposed Targa project were identified through the review of existing documentation relevant to the site and surrounding area. Table 7.4-1: Special-status Species Potentially Occurring on the proposed lease area lists the regulatory status, habitat requirements, and potential for occurrence on the location for each species considered in the assessment. Figure 7.4-1: California Natural Diversity Data Base Map, depicts the locations of special-status species recorded in the CNDDB within 5 miles of the proposed lease area. The USFWS list for the Stockton West quadrangle, in which the lease area occurs, contains the same species listed on the lists generated for the surrounding eight quadrangles. Therefore, only the list for the Stockton West quadrangle is included.

Special-status Plants

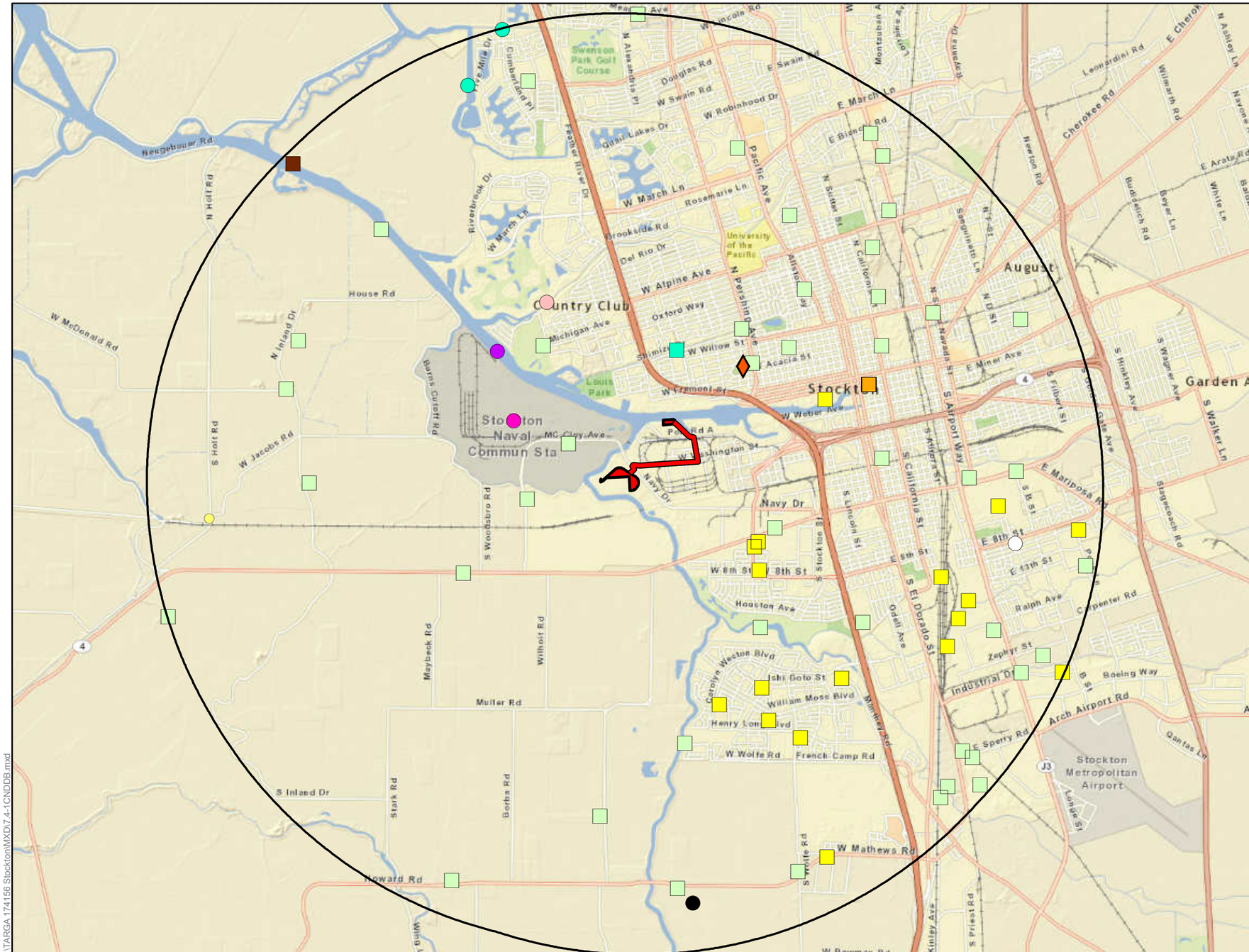
Due to vegetation management practices and/or the lack of suitable habitats on the locations, none of the special-status plant species known to occur in the vicinity of the locations have the potential to occur. For these reasons, the proposed Targa project would have no impact on special-status plant species.

Special-status Wildlife

Based on the review of literature relevant to the locations and surrounding areas along with the field survey, several special-status wildlife species have the potential to occur. However, due to vegetation management practices and the lack of habitat diversity, special-status species with the potential to occur on the locations of improvements site are limited to avian species.

<u>Northern Harrier</u>

The northern harrier is a slim, long-winged, long-tailed, raptor of open country. It can be found in annual grasslands in the Central Valley up to the lodgepole pine belt and alpine meadow habitats. Northern harriers are seldom found in wooded areas. This hawk nests on the ground in shrubby vegetation, usually at the edge of a marsh. Most of the nests are found in emergent wetlands or along rivers or lakes, but it may also nest in grasslands, grain fields, or on sage brush flats that are several miles from water. Harriers usually perch on the ground, but will use fence posts or other low perches and occasionally trees (Johnsgard, 1990). Northern harriers feed mainly on voles and other small mammals, birds, frogs, small reptiles, some crustaceans, and insects. Although no northern harriers were observed during the field survey, the locations reviewed provide suitable foraging habitat and marginal nesting habitat.



N

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Feet

Legend

- TARGA terminal and berth
- TARGA product pipeline
- **Five-Mile Buffer**
- **Suisun Marsh aster**
- **bristly sedge**
- **alkali milk-vetch**
- **burrowing owl**
- **California tiger salamander**
- **Delta smelt**
- **Delta tule pea**
- **Mason's lilaeopsis**
- **Swainson's hawk**
- **tricolored blackbird**
- **white-tailed kite**
- **woolly rose-mallow**
- **Multiple Occurances: big tarplant, palmate-bracted bird's-beak, heartscale, round-leaved filaree, San Joaquin spearscale, Sanford's arrowhead, and watershield**

** CNDDB points are centroids and do not indicate actual locations.*

G:\TARGA 174156 Stockton\MXD\7.4-1CNDDB.mxd

CNDDB MAP		TARGA
DATE: Nov 17, 2011	SCALE: 1:75,000	FACILITY: TARGA TERMINAL STOCKTON, CALIFORNIA
BY:	FIGURE: 7.4-1	

Table 7.4-1: Special-status Species Potentially Occurring on the Proposed Lease Area

Species	Regulatory Status[1]	Habitat Requirements	Potential for Occurrence
Plants			
Alkali milk-vetch (*Astragalus tener* var. *tener*)	1B.2	Playas, valley and foothill grasslands, vernal pools; typically in alkaline soils; blooms March throough June.	None; vegetation management practices and the lack of suitable habitat preclude the occurrence of this species on the project locations.
Big tarplant (*Blepharizonia plumose*)	1B.1	Valley and foothill grassland; blooms July through October.	None; vegetation management practices and the lack of suitable habitat preclude the occurrence of this species on the project locations.
Bristly sedge (*Carex comosa*)	2.1	Freshwater marshes and swamps, and valley and foothill grasslands; blooms May through September.	None; vegetation management practices and the lack of suitable habitat preclude the occurrence of this species on the project locations.
Delta button-celery (*Eryngium racemosum)*	SE, 1B.1	Vernally wet clay depressions within riparian scrub; blooms June through October.	None; there is no suitable habitat for this species on the project locations.
Delta mudwort (*Limosella subulata*)	2.1	Freshwater marshes and swamps; blooms May through August.	None; there is no suitable habitat for this species on the project locations.

Species	Regulatory Status[1]	Habitat Requirements	Potential for Occurrence
Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*)	1B.2	Freshwater marshes and swamps; blooms May through July.	None; there is no suitable habitat for this species on the project locations.
Heartscale (*Atriplex cordulata*)	1B.2	Chenopod scrub, meadows and seeps, saline/alkaline valley and foothill grasslands; blooms April through October.	None; vegetation management practices and the lack of suitable habitat preclude the occurrence of this species on the project locations.
Mason's lilaeopsis (*Lilaeopsis masonii*)	SR, 1B.1	Riparian areas, freshwater and brackish marshes and swamps; blooms April through November.	None; there is no suitable habitat for this species on the project locations.
Palmate-bracted bird's-beak (*Chloropyron palmatum*)	FE, SE, 1B.1	Chenopod scrub, alkaline valley and foothill grasslands; blooms May through October.	None; vegetation management practices and the lack of suitable habitat preclude the occurrence of this species on the project locations.
Recurved larkspur (*Delphinium recurvatum*)	1B.2	Chenopod scrub, cismontane woodland, valley and foothill grasslands; blooms March through June.	None; vegetation management practices and the lack of suitable habitat preclude the occurrence of this species on the project locations.
Round-leaved filaree (*California macrophylla*)	1B.1	Valley and foothill grasslands, cismontane woodlands; blooms March through May	None; vegetation management practices and the lack of suitable habitat preclude the occurrence of this species on the project locations.

Species	Regulatory Status[1]	Habitat Requirements	Potential for Occurrence
Sanford's arrowhead (*Sagittaria sanfordii*)	1B.2	Freshwater marshes and swamps; blooms May through October.	None; there is no suitable habitat for this species on the project locations.
San Joaquin spearscale (*Atriplex joaquiniana*)	1B.2	Chenopod scrub, playas, meadows and seeps, alkaline valley and foothill grasslands; blooms April through October.	None; vegetation management practices and the lack of suitable habitat preclude the occurrence of this species on the project locations.
Slough thistle (*Cirsium crassicaule*)	1B.1	Chenopod and riparian scrubs, and marshes and swamps; blooms May through August.	None; there is no suitable habitat for this species on the project locations.
Suisun Marsh aster (*Symphyotrichum lentum*)	1B.2	Freshwater marshes and swamps; blooms May through November.	None; there is no suitable habitat for this species on the project locations.
Watershield (*Brasenia schreberi*)	2.3	Freshwater marshes and swamps; blooms June through September.	None; there is no suitable habitat for this species on the project locations.
Woolly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis*)	1B.2	Freshwater marshes and swamps; blooms June through September.	None; there is no suitable habitat for this species on the project locations.
Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*)	2.1	Riparian forests, vernal pools, meadows and seeps, and marshes and swamps; blooms Mayt through September.	None; there is no suitable habitat for this species on the project locations.
Invertebrates			

Species	Regulatory Status[1]	Habitat Requirements	Potential for Occurrence
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	Blue elderberry shrubs.	None; there are no elderberry shrubs on the project locations.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Vernal pools, seasonal wetlands, and other seasonal freshwater habitats.	None; there is no suitable habitat for this species on the project locations.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE	Vernal pools, seasonal wetlands, and other seasonal freshwater habitats.	None; there is no suitable habitat for this species on the project locations.
Fish			
Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*)	FT, ST	Sacramento and San Joaquin rivers and their tributaries.	None; there is no suitable habitat for this species on the project locations.
Central Valley steelhead (*Oncorhynchus mykiss*)	FT, CH	Sacramento and San Joaquin rivers and their tributaries.	None; there is no suitable habitat for this species on the project locations.
Delta smelt (*Hypomesus transpacificus*)	FT, SE, CH	Sacramento and San Joaquin rivers and their tributaries, but species is usually concentrated in Delta and Suisun Bay areas.	None; there is no suitable habitat for this species on the project locations.
Green sturgeon (*Acipenser medirostris*)	FT	Sacramento and Feather rivers and their tributaries.	None; there is no suitable habitat for this species on the project locations.

Species	Regulatory Status[1]	Habitat Requirements	Potential for Occurrence
Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*)	FE, SE	Sacramento River and its tributaries.	None; there is no suitable habitat for this species on the project locations.
Amphibians/Reptiles			
California horned lizard (*Phrynosoma coronatum frontale*)	CSC	Inhabits open oak and coniferous woodlands, grasslands, and riparian areas. Species generally prefers sandy-soil types and often observed in rocky areas or on outcroppings.	None; there is no suitable habitat for this species on the project locations.
California red-legged frog (*Rana aurora draytonii*)	FT, CSC	Inhabits lowlands and foothills in or near permanent deep water with dense growth of emergent and woody riparian vegetation, bordering permanent and semi-permanent ponds, ponded streams, marshes, and springs. Upland habitat surrounding breeding areas is important for shelter during dispersal and estivation. Species is believed to have been extirpated from Central Valley floor.	None; there is no suitable habitat for this species on the project locations.
California tiger salamander (*Ambystoma californiense*)	FT, ST	Ponded water required for breeding. Adults spend summer in small-mammal burrows. Species range extends from the Central Valley and Sierra Nevada foothills from Yolo to Colusa counties south to Tulare County and in coastal valley and foothills from Sonoma to Santa Barbara counties, typically below 1,500 feet elevation.	None; there is no suitable habitat for this species on the project locations.

Species	Regulatory Status[1]	Habitat Requirements	Potential for Occurrence
Giant garter snake (*Thamnophis gigas*)	FT, ST	Prefers freshwater marsh and low-gradient stream habitats, including extensive rice fields in the Central Valley, with sufficient prey base of frogs, tadpoles, and small fish. Has adapted to drainage canals and irrigation ditches surrounding farmlands. Habitat requirements consist of 1) adequate water during the snake's active season (early spring through mid-fall) to provide food and cover; 2) emergent, herbaceous wetland vegetation such as cattails and bulrushes for escape cover and foraging habitat during the active season; 3) grassy banks and openings in waterside vegetation for basking; and 4) higher elevation uplands for cover and refuge from flood waters during the snake's dormant season in the winter. Giant garter snakes are typically absent from wetlands with sand, gravel, or rock substrates.	None; there is no suitable habitat for this species on the project locations.
Western pond turtle (*Emys marmorata*)	CSC	Found throughout the State inhabiting agricultural ponds, permanent pools along intermittent drainages, irrigation canals, low-gradient rivers and streams with emergent vegetation and suitable basking sites; and their associated upland habitats.	None; there is no suitable habitat for this species on the project locations.
Western spadefoot toad (*Spea hammondii*)	CSC	Inhabits lowlands in open areas with sandy or gravelly soils in a variety of habitats, including mixed woodlands, grasslands, chaparral, sandy washes, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Breeds from January through May in temporary pools and quiet streams.	None; there is no suitable habitat for this species on the project locations.

Species	Regulatory Status[1]	Habitat Requirements	Potential for Occurrence
Birds			
Bank swallow (*Riparia riparia*)	ST	Breeding ranges are restricted to the Sacramento Valley (Sacramento and Feather rivers), northeastern California, and small areas of the central and north coast. Inhabits riparian lowlands and nests in colonies. Requires vertical cliffs or soft banks with fine-textured soils near streams, rivers, lakes, and ocean for nesting. Suitable nesting habitat declining from flood-control measures (river channelization and artificial bank stabilization). Winters in South America.	None; there is no suitable habitat for this species on the project locations.
Greater sandhill crane (*Grus canadensis tabida*)	ST	Nests in wet meadows interspersed with emergent marsh habitat in northeastern California. Winters in agricultural croplands, marshlands, and irrigated pastures.	None, there is no suitable habitat for this species on the project locations.
Northern harrier (*Circus cyaneus*)	CSC	Forages for small birds and mammals over meadows, farmlands, grasslands, and rangelands. Perches on ground or low fenceposts; usually seen flying low over ground when foraging. Nests on the ground in fields or along the edges of marshes.	Moderate; potential foraging and marginal nesting habitat exist on the project locations.

Species	Regulatory Status[1]	Habitat Requirements	Potential for Occurrence
Swainson's hawk (*Buteo swainsoni*)	ST	Nests in isolated trees or riparian woodlands adjacent to suitable foraging habitat such as agricultural fields and grasslands.	Moderate; no nesting habitat on the project locations, but suitable nest trees occur adjacent to the project locations. The project locations provides suitable foraging habitat and at least six Swainson's hawks were observed soaring above the project locations during the field survey.
Tricolored blackbird (*Agelaius tricolor*)	CSC	Colonial species in the Central Valley and vicinity. Nests primarily in dense blackberry thickets, cattails, and tules.	None, there is no suitable habitat for this species on the project locations.
Western burrowing owl (*Athene cunicularia hypugaea*)	CSC	Nests in subterranean burrows often created by ground squirrels within open, dry grasslands; deserts; and scrublands characterized by low-growing vegetation.	Moderate; suitable nesting habitat and foraging habitat occur on the project locations. There was no evidence of the species observed during the field survey.
White-tailed kite (*Elanus leucurus*)	CFP	Found in open grasslands, savanna, open woodlands, marshes, desert grassland, partially cleared lands, and cultivated fields with scattered trees for nesting and perching. Nests in large shrubs or trees often in riparian corridors where it competes with other raptors for suitable nest sites.	Moderate; no nesting habitat on the project locations, but suitable nest trees occur adjacent to the project locations. The project locations provides suitable foraging habitat.

Species	Regulatory Status[1]	Habitat Requirements	Potential for Occurrence
Mammals			
Riparian brush rabbit (*Sylvilagus bachmani riparius*)	FE, SE	Riparian habitats along the San Joaquin River.	None, there is no suitable habitat for this species on the project locations.
San Joaquin kit fox (*Vulpes macrotis mutica*)	FE, ST	Open, dry grassland, shrub, and open forest habitats in the San Joaquin Valley and surrounding foothills.	None, there is no suitable habitat for this species on the project locations.

[1]Definitions

Federal		**California**		**California Native Plant Society**	
FE	Federally endangered	SE	State endangered	1B	Rare, threatened, or endangered in California and elsewhere
FT	Federally threatened	ST	State threatened	2	Plants rare, threatened, or endangered in California, but more numerous elsewhere
CH	Critical habitat	SR	State rare	0.1	Plants are seriously endangered in California
		CSC	California species of concern	0.2	Plants are fairly endangered in California
		CFP	California fully protected	0.3	Plants are not very endangered in California

Swainson's Hawk

Swainson's hawk is a long-distance migrant with nesting grounds in western North America. The Swainson's hawk population that nests in the Central Valley winters primarily in Mexico, while the population that nests in the interior portions of North America winters in South America (Bradbury *et al*., in prep.). Swainson's hawks arrive in the Central Valley between March and early April to establish breeding territories. Breeding occurs from late March to late August, peaking in late May through July (Zeiner *et al*., 1990). In the Central Valley, Swainson's hawks nest in isolated trees, small groves, or large woodlands next to open grasslands or agricultural fields. This species typically nests near riparian areas; however, it has been known to nest in urban areas as well. Nest locations are usually in close proximity to suitable foraging habitats, which include fallow fields, annual grasslands, irrigated pastures, alfalfa and other hay crops, and low-growing row crops. Swainson's hawks leave their breeding grounds to return to their wintering grounds in late August or early September (Bloom and De Water, 1994).

Due to the lack of trees on the project locations, there is no potential for Swainson's hawk to nest at the lease area; however, the mature black walnut and cottonwood trees located immediately west of the lease area along the San Joaquin River provide nesting opportunities for this species. Although the lease area provides lower-quality foraging habitat compared to the fallow fields, row crops, and annual grasslands in the vicinity of the lease area, Swainson's hawk could still forage on the property. As previously mentioned, at least six Swainson's hawks were observed soaring above the lease area throughout the course of the field survey. Based on the dominant plant species identified on the lease area, foraging opportunities for this species would be significantly reduced, if not completely eliminated, if onsite vegetation management activities ceased.

Western Burrowing Owl

Western burrowing owl is a small, ground-dwelling owl that occurs in western North America from Canada to Mexico, and east to Texas and Louisiana. Although in certain areas of its range western burrowing owls are migratory, the owls are predominantly non-migratory in California (Zeiner *et al*., 1990). The breeding season for western burrowing owls occurs from February to August, peaking in April and May (Zeiner *et al*., 1990). Western burrowing owls nest in burrows in the ground, often in old ground squirrel burrows. This owl is also known to use artificial burrows, including pipes, culverts, and nest boxes.

The larger burrows observed throughout the site are the appropriate size for western burrowing owl use; however, no sign of the species was identified on the project locations during the field survey. Additionally, the relatively unvegetated portions of the project locations provide suitable foraging habitat. Based on the dominant plant species identified on the project locations, all nesting and foraging opportunities for this species on the property would be eliminated if vegetation management activities ceased.

White-tailed Kite

The white-tailed kite is a medium-sized raptor that is a yearlong resident in coastal and valley lowlands in California. White-tailed kites are monogamous and breed from February to October, peaking from May to August (Zeiner *et al*., 1990). This species nests near the top of dense oak, willow, or other large trees. White-tailed kites are typically found foraging in open grasslands, farmlands, meadows, and emergent marshes where they prey mostly on small mammals.

Comparable to the Swainson's hawk analysis, the lack of onsite trees limits nesting habitat for this species to adjacent trees along the San Joaquin River. The project locations provides foraging habitat for white-tailed kite even through better opportunities occur in the fallow fields, row crops, and annual grasslands in the vicinity of the site. Foraging habitat for this species would also be significantly reduced, if not completely eliminated, if onsite vegetation management activities ceased.

Other Bird Species Protected by the MBTA

In addition to the bird species discussed above, the project locations provides nesting habitat for bird species protected solely by the MBTA, such as northern mockingbirds and mourning doves. While the lease area lacks trees and shrubs, should vegetation management practices on the lease area cease or not be implemented on a routine basis, the extent of nesting habitat would increase significantly as the herbaceous plant species become re-established. Although nesting habitat provided by vegetation was limited during the inspection, some common birds such as killdeer (*Charadrius vociferus*) are known to nest on the ground.

7.4.3.2 Wetlands and Jurisdictional Waters

As previously discussed, the project locations are comprised of relatively level land and a manmade drainage ditch located along the northern and eastern site boundaries. The ditch at the lease area appears to collect stormwater runoff from the area and Pacific Ethanol facility and conveys it through a series of culverts near the eastern edge of the proposed lease area and into the roadside ditch along Navy Drive. These culverts will be utilized for the placement of the proposed pipeline; as such, the pipeline will not affect jurisdictional wetlands. During the field survey, there were no areas on the project locations that exhibited signs of wetland hydrology or a dominance of wetland vegetation.

The 2006 Pacific Ethanol EIR indicated that the Corps operated a dredged spoils disposal operation on the land and eliminated any jurisdictional wetlands. The EIR concluded that the Pacific Ethanol Project would have no impact to federally protected wetlands. As part of previous research done for the proposed Targa project, TRC contacted Bob Murakami of the Corps Flood Protection and Navigation Unit and confirmed that the land was a Corps-approved disposal area for dredging operations in the Port and that no wetlands or other jurisdictional waters occur on the project locations. Likewise, a site review of Berth #9 area clearly demonstrates that the use of the currently existing Berth facilities will not affect jurisdictional wetlands or waters.

7.4.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to biological resources significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the CDFG or USFWS;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance; and/or
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

In the evaluation process, it is noted that *Section 15380* of the *CEQA Guidelines* defines endangered, rare, or threatened species as follows:

> *1)"Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, over-exploitation, predation, competition, disease, or other factors; or*
>
> *2)"Rare" (all animals designated as rare by the Fish and Game Commission prior to January 1, 1985 were automatically reclassified as threatened by Fish and Game Code Sec. 2067) when either:*
>
> > *(a)Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or*
> >
> > *(b)The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.*

(c)A species of animal or plant shall be presumed to be endangered, rare, or threatened, if it is listed in:

(1) Sections 670.2 or 670.5, Title 14, California Administrative Code of Regulations; or

(2) Title 50, Code of Federal Regulations Sections 17.11 or 17.2 pursuant to the Federal Endangered Species Act as rare, threatened, or endangered.

(d)A species not included in any listing identified in subsection (c) shall nevertheless be considered to be rare or endangered if the species can be shown to meet the criteria in subsection (b).

(e)This definition shall not include any species of the Class Insecta, which is a pest whose protection under the provisions of CEQA would present an overwhelming and overriding task to man as determined by:

(1) The Director of Food and Agriculture with regard to economic pests; or
(2) The Director of Health Services with regard to health risks.

7.4.5 Impacts and Mitigation Measures

Impacts of the proposed Targa project on biological resources are addressed in Section 3.4: Biological Resources of the 2006 Pacific Ethanol EIR. Significant impacts on biological resources identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented below. The levels of significance before and after application of mitigation measures identified in the 2006 Pacific Ethanol EIR are also presented below. The proposed Targa project is within the scope of the analysis in the 2006 Pacific Ethanol EIR and there are no changed circumstances since the preparation of these documents that require re-analysis of the cumulative impacts.

7.4.5.1 2006 Pacific Ethanol EIR Impacts

The following potential impacts were identified in the 2006 Pacific Ethanol EIR and are applicable to the proposed Targa project:

Impact #3.4.1 - Substantial Adverse Effect on Candidate, Special-status, or Sensitive Species.

Impact #3.4.2 - Adverse Effect on a Sensitive Community

Impact #3.4.3 - Potential Impacts to Wetlands

Impact #3.4.6 - Cumulative Biological Impacts

7.4.5.2 2006 Pacific Ethanol EIR Mitigation Measures

Mitigation measures in the 2006 Pacific Ethanol EIR that are applicable to the proposed Targa project and that would be required as part of proposed Targa project implementation include the following:

Mitigation Measure #3.4.1.1 - Sensitive Plants: Since there is the potential for federal or State endangered species (palmate-bracted bird's beak and delta button celery) and otherwise sensitive species to occur, the project shall contact the San Joaquin Council of Governments to participate in the County Multi-species Habitat Conservation Plan.

Mitigation Measure #3.4.1.2 - Valley Elderberry Longhorn Beetle: USFWS requires that a 100-foot (or wider) buffer zone be established and maintained around both elderberry plants. Since the project site plan indicates encroachment into this buffer zone, the project shall contact the San Joaquin Council of Governments to participate in and obtain encroachment authorization through the San Joaquin County Multi-species Habitat Conservation Plan.

Mitigation Measure #3.4.1.3 – Western Pond Turtle and Giant Garter Snake: Because of the potential impact to these reptilian species, the project shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multi-species Habitat Conservation Plan.

Mitigation Measure #3.4.1.4 - Sensitive Birds: Because of the potential loss of nesting habitat for many birds protected under the MBTA and/or other federal or State laws, the project shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multispecies Habitat Conservation Plan.

Mitigation Measure # 3.4.1.5 - American Badger: Because of the potential adverse impact to American badgers that may occur on the project site, the project shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multispecies Habitat Conservation Plan.

Mitigation Measure # 3.4.6 – Cumulative Biological Impacts The habitat on the project site is considered to be low quality. Mitigation measures described above (for biological resources) will serve to reduce the project's incremental contribution to any cumulative impact to a less than significant level.

7.4.5.3 Targa Stockton Terminal Project-specific Impacts

There would be no impacts to biological resources as a result of the proposed design and site plan of the proposed Targa project. The proposed lease area and lay down area is maintained as an industrial lot and all vegetation and suitable habitat to support wildlife and plants has been

removed, including at the proposed lease area, at Berth #9, and throughout the public ROW which contain the alignment of the pipeline. The public ROW where pipelines would be installed is also void of habitat suitable for wildlife or plants. Furthermore, the proposed Targa project would participate in the San Joaquin Council of Governments (SJCOG) San Joaquin County Multi-species Habitat Conservation Plan, which would further ensure potential impacts would be mitigated to a less-than-significant level concerning special-status species. The mitigation measure below addresses the conservation guidelines that shall be implemented to mitigate for project-related impacts.

7.4.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

BIO-1 Subsequent to contacting the SJCOG, a biologist retained by the SJCOG will perform a pre-construction survey of the site prior to any project-related ground disturbance to verify vegetation types affected by the project and to determine if any species covered by the San Joaquin County Multi-species Habitat Conservation Plan occur on the site. The results of the pre-construction survey will determine which Incidental Take Minimization Measures (if any) will be required for project approval. Incidental Take Minimization Measures have been established for each species covered by the Plan to ensure that all impacts to covered species are minimized and mitigated appropriately under FESA, CESA, and CEQA.

7.4.6 Biological Resources Initial Study Responses

Table 7.4-2: Biological Resources Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☑	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐	☑
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐	☑
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☐	☑

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐	☑

7.4.7 Responses to Initial Study Questions

7.4.7.1 Species Impacts: Less than Significant with Mitigation Incorporated

The 2006 Pacific Ethanol EIR concluded that the development of the proposed lease area would permanently remove potential habitat for special-status plant species; may impact valley elderberry longhorn beetles, western pond turtles, and giant garter snakes; would eliminate potential nesting and foraging habitat for burrowing owls; would permanently remove low-quality foraging habitat for Swainson's hawk; and would permanently remove suitable foraging habitat for cliff swallows. During the impact analysis, the 2006 Pacific Ethanol EIR determined that the loss of foraging habitat for Swainson's hawks and cliff swallows was less than significant (pages 3-42 through 3-44). The proposed Targa project would be located on the developed parcel as a result of the Pacific Ethanol Production development phase being fully implemented. The proposed Targa project, including Berth #9 area and the proposed pipeline, would be located on industrial parcels that are currently devoid of suitable habitat for wildlife and plant species. To limit additional impacts, the proposed Targa project has incorporated mitigation measure – the requirement to conduct a Biological survey three (3) months prior to the initiation of construction to lessen these impacts to a less than significant level.

7.4.7.2 Riparian and Other Sensitive Habitats: No Impact

The 2006 Pacific Ethanol EIR indicated that there were no sensitive natural communities within the proposed lease area and along linear features of the proposed Targa project and that the natural riparian community that historically existed on the proposed lease area had been eliminated by the routine disposal of dredge material (page 3-44). The proposed lease area is managed for future industrial development and as such no riparian or other sensitive habitats were found on the proposed lease area, Berth #9 or within the public ROW. Additionally, Berth #9 area is composed of concrete/asphalt and houses several buildings which would not qualify as a sensitive habitat. The proposed Targa project would have no impact on riparian and other sensitive habitats.

7.4.7.3 Federally Protected Wetlands: No Impact

The 2006 Pacific Ethanol EIR stated that the Corps' dredged spoils disposal operation had eliminated any jurisdictional wetlands on the proposed lease area (page 3-45). Review of the proposed lease area, Berth #9, and public ROW indicated no areas containing federally protected wetlands. The proposed Targa project would have no impact on wetlands.

7.4.7.4 Interfere with Movement of Native Wildlife: Less than Significant Impact

The 2006 Pacific Ethanol EIR determined that several native migratory bird species use the site as a stopover during their migration and that the site is in the middle of the Pacific Flyway, an established air route of waterfowl and other birds migrating between wintering grounds in Central and South America and nesting grounds in Pacific Coast states and provinces of North America. Additionally, the project would eliminate 99 acres of extremely marginal resting and foraging habitat (page 3-45). The 2006 Pacific Ethanol EIR concluded that the development of the site would have no impact on the movement or migration of native fish species and result in no impact to the migration of waterfowl and other birds because there was better, more adequate habitat at the nearby wastewater treatment ponds (page 3-45).

The entire proposed lease area is surrounded by the raised rail spur, which acts as a barrier for wildlife movement. The open ground and industrial activities at the site also deter wildlife movements through the proposed lease area. The proposed lease area is considered an in-fill industrial development on a previously approved industrial parcel. The proposed Targa project would have no impact on the movement of native wildlife.

The Berth No. 9 area is a paved/ruderal habitat primarily covered by impermeable surfaces (i.e., warehouses, asphalt). No trees are on or adjacent to the proposed Targa project area. Based on the results of a reconnaissance survey, no CDFG-regulated potential habitats such as riparian vegetation, native creeks, drainage channels, or irrigation ditches supporting riparian vegetation occur within the proposed Targa project area. No potentially regulated Corps habitats such as natural or artificial (man-induced) seasonal wetlands; freshwater emergent wetlands; natural or artificial bodies of open water such as ponds or lakes, including native creeks, drainage channels, or irrigation ditches, occur on the project area. Additionally, since the proposed pipeline would be buried, no wetlands or other habitat areas will be affected by this addition. Finally, no federal or State-listed threatened or endangered plant or animal species are located on or in proximity to the area; therefore, the proposed Targa project will not affect federally protected wetlands.

The marine traffic related to the proposed Targa project would not have an impact on the movement of native resident or migratory fish species within the San Joaquin River, and would disturb a limited area of benthic sediment (discussed in Draft Environmental Impact Report for Inland Cold Storage Stockton Lease Approval, State Clearinghouse #2006072109). Therefore, this impact would be less than significant.

7.4.7.5 Conflict with Local Policies: No Impact

The 2006 Pacific Ethanol EIR stated that the lease area was covered by the San Joaquin County Multi-species Habitat Conservation Plan and that the project was in a "no pay zone," meaning that no fee payments would be required to compensate for loss of biological resources under the Plan. The project would participate in the Plan and consult with plan administrators where necessary (2006 Pacific Ethanol EIR, page 3-45). The 2006 Pacific Ethanol EIR concluded that the development of the site would not conflict with local policies or ordinances protecting biological resources and the proposed Targa project would be consistent with the previously approved transshipment and storage facility. As previously discussed, due to the existing condition of Berth #9, the proposed use of Berth #9 will not require the removal of any trees. Furthermore, since the placement of the propose pipeline is witthin existing public ROW, the placement of the pipeline is protected by the agreement and it is unlikely that any conflifcting local law exists. Therefore, the proposed Targa project would also not conflict with local policies or ordinances (2006 Pacific Ethanol EIR, page 3-45).

7.4.7.6 Conflict with Conservation Plans: No Impact

The 2006 Pacific Ethanol EIR states that the lease area was covered by the San Joaquin County Multi-species Habitat Conservation Plan and that the project would participate in the Plan and consult with plan administrators where necessary (page 3-45). As described above, the 2006 Pacific Ethanol EIR concluded that the development of the site would not conflict with local policies or ordinances protecting biological resources (page 3-45). The 2006 Pacific Ethanol EIR demonstrated that the project would not conflict with an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan and the proposed Targa project is consistent with the previously approved transshipment and storage facility. Since the proposed Targa project has a smaller footprint than the 2006 Pacific Ethanol EIR project area, and adds Berth #9 area and the some portions of public ROW for the proposed pipeline (both of which are ruderal surfaces that house no vegetation), the proposed Targa project would not conflict with San Joaquin Habitat Conservation Plan. Furthermore, the species that would likely be found in the vicinity of the lease area, Berth #9, and public ROW would include avian species, not terrestrial species. Any possible impacts, to such species, would be minimal, and not rise to a level of significance. Therefore, the proposed Targa project would not conflict with any adopted or approved conservation plans and the proposed Targa project wil have no impact on any such plans.

7.5 CULTURAL RESOURCES

Cultural resources are historic and prehistoric archaeological sites, historic buildings and structures, and resources of traditional cultural significance to Native Americans and other groups. This section reviews the proposed Targa project potential impact to cultural resources and the 2006 Pacific Ethanol EIR, which this document is tiered from. Figure 7.5-1 depicts the cultural-archaeological area of potential effect.

7.5.1 Background

7.5.1.1 Regulatory Context

Cultural resources in the State of California are recognized as non-renewable resources that require management to assure their benefit to present—and future—Californians. Therefore, cultural resources management work conducted as part of any proposed undertaking must comply with applicable federal, state, and/or local regulations designed to protect the cultural heritage within the proposed lease area, Berth #9, and pipeline route.

<u>Federal Regulations</u>

National Historic Preservation Act

Enacted in 1966, the National Historic Preservation Act (NHPA) has become the foundation and framework for historic preservation in the United States. The NHPA authorizes the Secretary of the Interior to expand and maintain a National Register of Historic Places, establishes an Advisory Council on Historic Preservation as an independent federal entity, requires federal agencies to take into account the effects of their undertakings on historic properties, affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on any undertaking that may affect historic properties listed, or eligible for listing, in the National Register of Historic Places, and makes the heads of all federal agencies responsible for the preservation of historic properties owned or controlled by their agencies.

Section 106 of the NHPA governs federal regulations for cultural resources. The goal of the Section 106 process is to offer a measure of protection to sites that are determined eligible for listing on the National Register of Historic Places. The criteria for determining National Register eligibility are found in 36 Code of Federal Regulations (CFR) Part 60.

G:\TARGA 174156 Stockton\MXD\7.5-1 Cultural Area of Potential Effect

Legend

- Project Site TARGA Terminal
- Area of Potential Effect

AREA OF POTENTIAL EFFECT

DATE: Nov 17, 2011	SCALE: 1:6,000
BY:	FIGURE: 7.5-1

TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**

State Regulations

Discretionary actions undertaken by state or local governments in California, unless otherwise exempted, must comply with the CEQA Guidelines, Sections 21083.2 and15064.5. Enacted in 1971, CEQA directs lead agencies to first determine whether a cultural resource is a "historically significant" cultural resource. In the protection and management of the cultural environment, CEQA Guidelines provide definitions and standards for cultural resources management. The term "historical resource" is defined as follows:

(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.

(2) A resource included in a local register of historical resources or identified as significant in a historical resource survey shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site area, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a cultural resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources, including the following:

a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

b. Is associated with the lives of persons important in our past;

c. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

d. Has yielded, or may be likely to yield, information important in prehistory or history.

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, or is not included in a local register of historical resources, or identified in a historical resources survey, does not preclude a lead agency from determining that the resource may be a historical resource [Title 14 CCR Section 15064.5(1) (California, 2011)].

As defined in Section 15064.5(1) of the CEQA Guidelines, a "unique archaeological resource" is:

> An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
>
> (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
>
> (3) Is directly associated with a scientifically recognized important prehistoric or historical event or person [Public Resources Code Section 21083.2(g)].

A project with an effect that may cause a substantial adverse change in the significance of a historical resource or unique archaeological resource is a project that may have a significant effect on the environment per the CEQA Guidelines, Section 21083.2. Effects on cultural properties that qualify as historical resources or unique archaeological resources can be considered adverse if they involve physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

The statutes and guidelines cited above specify how cultural resources are to be managed in the context of projects subject to CEQA. Archival and field surveys must be conducted and identified cultural resources must be inventoried and evaluated in prescribed ways per the CEQA Guidelines, Section 21083.2.

Prehistoric and historical resources deemed "historically significant" must be considered in project planning and development. As well, any proposed undertaking that may affect "historically significant" cultural resources must be submitted to the State Historic Preservation Officer for review and comment prior to project approval by the responsible agency and prior to construction. The CEQA Guidelines detail methods by which significant effects may be mitigated and discuss procedures for treatment of human remains discovered in the course of project development.

The California Office of Historic Preservation administers the California Register program, the California Register of Historical Landmarks, and California Points of Local Historical Interest programs. The State Historic Preservation Officer enforces the designation and protection process and is the head of the California Office of Historic Preservation. The California Office of Historic Preservation ensures that the state has a qualified historic preservation review commission, maintains a system for surveys and inventories, and provides for adequate public participation in its activities. The Office of Historic Preservation also administers the Certified Local Government program for the State of California.

Native American Consultation

TRC contacted the Native American Heritage Commission (NAHC) regarding the presence of burials and sacred lands for the project on August 30, 2011. The NAHC responded on September 26, 2011. In its response, the NAHC stated that the sacred lands file records search did not indicate the presence of any known Native American cultural resources within one-half mile of the project area. In its transmittal, the NAHC enclosed a list of nine Native American individuals and/or organizations that might have knowledge of cultural resources in or near the project area.

On October 4, 2011, TRC sent letters with a project location map to all individuals/groups on the list requesting information and comments. On October 5, 2011 Ms. Silvia Burley Chairperson of the California Valley Miwok Tribe responded that they have no issues in regards to the proposed lease area, Berth #9 and pipeline route. The Miwok requested being apprised of artifacts if found at this location. No other responses have been received as of this time. The NAHC correspondence can be found in Appendix E.

Local Regulations

Stockton 2035 General Plan

The City of Stockton's (City) primary objective is to assist in the continual identification of significant cultural resources to ensure their preservation and maintenance of the City's heritage. The following goals and policies relating to cultural resources are applicable to the proposed Targa project:

Goal NCR-3 is to encourage the identification, protection, and enhancement of the City's archaeological, historical, cultural, and paleontological resources for their cultural values.

- **NCR-3.5 Archaeological Resource Surveys:** The City shall require that a record search, field surveys where appropriate, technical reports where appropriate be conducted for each project prior to approval.

- **NCR-3.6 Discovery of Archaeological Resources:** Consistent with Stockton Municipal Code Section 16-310.050, in the event of archaeological/paleontological resources being discovered during excavation, the City shall require that construction work on the lease area or pipeline route be suspended until a qualified archaeologist/paleontologist can access and make recommendations necessary to protect the resource.

- **NCR-3.7 Native American Resources:** The City shall consult with Native American representatives regarding cultural resources. Coordination with the NAHC should begin at the onset of a particular project.

- **NCR-3.8 Discovery of Human Remains:** Consistent with Stockton Municipal Code Section 16-310.050-Cultural Resources and CEQA Guidelines (Section 15064.5), if human remains of Native American origin are discovered during project construction, the City shall require

compliance with all State laws relating to the disposition of Native American burials. The burials would fall within the jurisdiction of the NAHC.

7.5.2 Methodology

7.5.2.1 Archival Research Methods

The California Historic Resources Information System maintains regional offices that manage site records for known cultural resource locations and related technical studies. The regional office for San Joaquin is the Central California Information Center at California State University, Stanislaus. Information regarding cultural resource studies and archaeological sites was compiled using a 1-mile radius around the project area. Sources reviewed include all known and recorded archaeological and historic sites and cultural resource reports. Additional resources that were consulted for relevant information included the California Register, National Register, California Inventory of Historic Resources, and California Points of Historical Interest, California Historical Landmarks, and historic maps.

7.5.3 Environmental Setting

The Proposed Targa project is located on the eastern edge of the Sacramento-San Joaquin River delta and lies within the Great Central Valley.

7.5.3.1 Prehistory

Little is known of the earliest occupants of the Delta region, due to the meandering and rapid erosional patterns of the San Joaquin and Sacramento Rivers. There are several proposed sequences of cultural patterns (Fredrickson, 1974; Moratto, 1984; Ragir, 1972). The sequence utilized here is very broad and includes the Lower, Middle, and Late Archaic periods, and the Emergent Occupation.

Lower Archaic (8000 to 3500 calibrated years before present (cal BP)) A generalized pattern of a mobile forager is characterized by the portable millingstones, which are large wide-stemmed projectile points. Archaeobotanical remains suggest an economy focused on acorns.

Middle Archaic (3500 to 500 cal BP) During the Middle Archaic there appears to be an increase in regional trade and possibly signs of sedentism. The first cut shell beads appear in mortuaries. Mortars and pestles are documented shortly after 4000 cal BP Net sinkers are a typical marker for this time. The burial complexes with ornamental grave associations seem to represent a movement from forager to semi-sedentary land use (Jones and Klar, 2007).

Upper Archaic (500 cal BP to cal Anno Domini (AD) 1050) The Upper Archaic period shows continued specialization and an increase in the complexity of technology. Acorns and fish were the predominant food sources. New bone tools and ornaments appear, including whistles, and barbless fish spears. Beads become very prominent with several types. Mortars and pestles continue to be the sole grinding tools. Net sinkers disappear at most sites. Mortuary practices change from a flexed position to an extended position.

Emergent (cal A.D. 1050 to Historic) Many archaeologists believe that craft specialization, political complexity, and social ranking were highly developed. New bead types and multiperforated and bar-scored ornaments appear. The bow and arrow replace the dart and atlatl as the favored hunting tools (Moratto, 1984). The cultural traditions seem to be very similar to the ones witnessed at the time of the European contact.

7.5.3.2 Ethnography

The project area lies within the former territory of the Northern Valley Yokuts group known as the Yatchicumne. The Yokuts are unusual as they were one of the few California groups that lived in true tribes with distinct territories, and dialects. The territory of the Northern Valley Yokuts extended from the Diablo Range in the west to the Sierra Nevada foothills in the east, with the San Joaquin River as the core area (Wallace, 1978). Ethnographic literature on the Northern Valley Yokuts is lacking in depth predominantly due to the fact that the Northern Valley Yokuts were displaced so early. In 1830-1833 a malaria outbreak wiped out entire tribes. Ethnographical evidence indicates that villages were commonly situated near waterways or rivers, with a dependency on the natural resources of the marshes and sloughs.

7.5.3.3 Historic Period

The project area is within the vicinity of the industrial town of Stockton. The town was built around the shipping industry. The river's deep-water channel was completed in 1933 to make the Stockton Port District a supply depot for military operations in the Pacific. In 1944, the Navy built a supply depot at Rough and Ready Island which is directly across the San Joaquin River from the project area. From 1945 to 1956, the island was dominated by buildings and warehouses. The base is now decommissioned and Rough and Ready Island is currently controlled by the Stockton Port District.

Stockton Port District lies on the banks of the San Joaquin River about 65 kilometers (40 miles) south of the Port of West Sacramento and about 96 kilometers east of the Port of San Francisco in central California. When irrigation was introduced and the Central Pacific Railroad arrived in 1869, the Stockton Port District grew as a market for farm produce and wines. While the Stockton Port District continues to be an important center for agricultural production of fruits, vegetables, and wines, it has also grown as a commercial and industrial center for the area.

7.5.3.4 Paleontology

On September 16, 2011 an online locality record search was conducted for the project on the University of California, Museum of Paleontology website (University of California, 2011). No localities were found within the proposed Targa project location for invertebrates, microfossils, or vertebrates. The geologic map of the area was checked for the geologic rock units for the project area (Wagner *et al*., 1991). The map shows that the project area is underlined by the Dos Palos Alluvium dating from the late Pleistocene to early Holocene. This formation is predominantly floodbasin deposits with low probability of fossils. The project area has been utilized as a disposal area for dredged materials.

7.5.3.5 Summary of Known Cultural Resources and Significant Findings

An archival record search of the project area was conducted by the Central California Information Center at California State University, Stanislaus on March 15, 2010. The records search was conducted to determine the extent, if any, to which the current project area had been previously surveyed, and the number and type of cultural resources in the area and within the project limits. The archival search consisted of an archaeological and historical records and literature review for an area within a one-mile radius of the project. This record search provided background on the types of sites expected in the region, and covered the project area.

The record search results identified no resources within the project area. There is one prehistoric resource (39-000237), a village site, approximately 1 mile away from the project area. Thirty six plus historic resources, were located within a 1-mile radius of the project area, most of these resources were located on Rough & Ready Island in a historic district. Of these historic resources, the closest findings are two bridges: Burlington Northern Santa Fe Railway Bridge, which crosses over Navy Drive and has been classified as not eligible for the National Register; and a vehicular bridge located at the San Joaquin River at Navy Drive, which leads to Rough & Ready Island and was found eligible as a contributing element to the historic district Naval Supply Annex Historic District on Rough and Ready Island. Both bridges would not be impacted by the project. Some of the other historic resources found within the 1-mile radius were levee segments, a segment of Daggett Road, ditch along Daggett Road, and a variety of structures and buildings on Rough & Ready Island.

From the record search results it appears that only a very small portion of the project area has been previously surveyed. A cultural resources survey conducted in 1980 by the Corps for the Fourteen-mile Slough and Smith Levee stated that the borrow site (identified as including the majority of the project area) was not surveyed. This cultural resource survey conducted stated, “since [the borrow site] has a long history of being used for that purpose and also as a disposal for dredged material, any evidence of the original landscape would have been obliterated and the probability of finding cultural remains would be nil (Corps, 1980).”

7.5.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to cultural resources significant if the project would:

- cause a substantial adverse change in the significance of a historical resource as defined by CEQA Guidelines Section 15064.5;
- cause a substantial adverse change in the significance of unique archaeological resource as defined by CEQA Guidelines Section 15064.5;
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and/or
- disturb any human remains, including those interred outside of formal cemeteries.

7.5.5 Impacts and Mitigation Measures

Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented in the following section. Impacts of the proposed Targa project related to cultural resources are addressed in Section 3.5 (Cultural Resources) of the 2006 Pacific Ethanol EIR. The proposed Targa project is within the scope of the cultural resource analysis presented in the 2006 Pacific Ethanol EIR and there are no changes in circumstances since the preparation of these documents that would require reanalysis of cumulative impacts.

7.5.5.1 2006 Pacific Ethanol EIR Impacts

Impact #3.5.1 – Disturbance of Cultural or Historical Resources, Skeletal Remains

The 2006 Pacific Ethanol EIR determined that no evidence of cultural resources exist on the proposed lease area and linear features. The 2006 Pacific Ethanol EIR noted that because any such remains would likely be buried, if they existed, excavation crews would need to exercise additional caution if remains were encountered.

7.5.5.2 2006 Pacific Ethanol EIR Mitigation Measures

Mitigation Measure #3.5.1: Pursuant to CEQA Guidelines 15064.5(f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist or paleontologist shall be contacted to assess the significance of the find. If any find is determined to be significant, project proponents and the qualified archaeologist and/or paleontologist would meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards. If the discovery includes human remains, CEQA Guidelines 15064.5 (e)(1) shall be followed.

In the event of the accidental discovery or recognition of any human remains, the following steps should be taken:

(1) There shall be no further excavation or disturbance e of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

(A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

(B) If the coroner determines the remains to be Native American:

1. The coroner shall contact the Native American Heritage Commission within 24 hours.

2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98 or

(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

(A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
(B) The Descendant identified fails to make a recommendation; or
(C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

7.5.5.3 Targa Stockton Terminal Project-specific Impacts

The proposed Targa project would not affect known archaeological or historic resources of significance. It is possible, however, that buried cultural deposits could be encountered during construction. If resources are encountered during construction, adverse impacts could be substantial, depending on the significance of the cultural resource. With the implementation of the 2006 Pacific Ethanol EIR Mitigation Measure #3.5.1, outlined above, no impacts are anticipated and no additional mitigation measures have been recommended for the proposed Targa project.

7.5.5.4 Project-specific Mitigation Measures

No mitigation measures are recommended.

7.5.6 Cultural Resources Initial Study Responses

Table 7.5-1: Cultural Resources Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☑	☐
b) Cause a substantial adverse change in the significance of unique archaeological resource pursuant to § 15064.5?	☐	☐	☐	☑	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☑	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☑	☐

7.5.7 Response to Questions

7.5.7.1 Historical Resource: Less than Significant

The 2006 Pacific Ethanol EIR (page 3-47) concluded that since there are no structures on the project area, historical resources are not addressed. The recent record search indicated two close historic resources to the proposed Targa project, both of these are bridges, but neither should be affected by the proposed Targa project.

The Port, including the proposed Targa project berthing site, is not listed in the National Register of Historic Places, California Register of Historic Resources, California Inventory of Historic Resources, California Historical Landmarks, Survey of Surveys, or California Points of Historical Interest (National Park Service, 2011). The Stockton Port District has determined that the existing warehouses are not considered a significant historical resource and are not accessible to the public. Therefore, the proposed improvements and operations at the berth would not cause a substantial adverse change in the significance of a historical resource as identified by the lead agency, in accordance with CEQA guidelines Section 15064.5. Therefore, this impact would be less than significant.

7.5.7.2 Archaeological Resource: Less than Significant

As part of the 2006 Pacific Ethanol EIR, a cultural resource records search was completed at the Central California Information Center (page 3-47). The record search indicated that there were no cultural resources recorded within the proposed Targa project area. It was concluded in the 2006 Pacific Ethanol EIR that although no evidence of any archaeological features are known within the project area, there is still a possibility that undocumented finds may be encountered (page 3-48). Additionally, at this time the NAHC was contacted and their records were searched for known cultural resources recorded within the proposed Targa project area; and letters were sent to Native American individuals and organizations that may have knowledge of cultural resources in the project area. No known cultural resources were recorded within the proposed Targa project area

In October of 2011 an additional cultural resources records search was conducted at the Central California Information Center and also concluded there were no cultural resources recorded within the proposed Targa project area. The NAHC was also contacted again in October 2011, and at this time, no resources within the project area had been discovered. As such, it is highly unlikely that cultural resources will pose a potential issue, and the impacts are less than significant.

7.5.7.3 Paleontological Resource: Less than Significant

The 2006 Pacific Ethanol EIR does not directly address paleontological resources. A search of geologic maps of the area shows that the proposed Targa project is underlined by the Dos Palos Alluvium dating from the late Pleistocene to early Holocene. This formation is predominantly flood basin deposits with low probability of containing fossils. Although unlikely, there is potential for unknown paleontological resources to be impacted as a result of the proposed Targa project activities. With the implementation of Mitigation Measure #3.5.1, discussed above, and the low likelihood for the existing formation to contain fossils or other sensitive cultural resources, impacts to paleontological resources are considered less than significant.

7.5.7.4 Human Remains: Less than Significant

The cultural resources records search completed as part of the 2006 Pacific Ethanol EIR (page 3-48) concluded that no evidence of any known human remains was located within the project area. Due to the buried nature of such finds, and the uncertainty of whether or not any significant cultural resource exists, it is not feasible to conduct extensive studies prior to implementation of the project.

Research conducted in October of 2011 showed that there are no archaeological sites with human remains within a 1-mile radius of the lease area and no known cemeteries nearby. Nevertheless, while the likelihood of finding human remains is small, there is potential that unidentified human remains could be found within or nearby thelease area. With the implementation of Mitigation Measure #3.5.1, discussed above, any potential impacts would be considered negligible. Therefore, construction of the proposed Targa project would not disturb any human remains,

including those interred outside of formal cemeteries. Project-related impacts to human remains would be less than significant.

7.6 GEOLOGY, SOILS, AND SEISMICITY

This section contains a description of the setting regarding geology, soils, and seismicity in the proposed lease area, along with a description of the existing regional physiography, geologic hazards, and soil characteristics in the area. The following discussion is based primarily on the following information sources, and other publicly available geologic literature:

- United States Geological Survey (USGS) topographic and geologic maps;
- Geotechnical Investigation, Targa Stockton Terminal Report No. 185908, prepared for the proposed Targa project by TRC Solutions Inc. (TRC) September 15, 2011 (TRC Geotechnical Investigation);
- Geotechnical Report prepared for the proposed lease area as part of the Pacific Ethanol Production and Transshipment Facility (Pacific Ethanol Project) by Professional Service Industries, Inc., February 26, 2007; and
- 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR).

7.6.1 Background

7.6.1.1 Regulatory Context

Title 24 Uniform Building Code sets building construction standards for safety and protection in the event of ground shaking.

7.6.2 Methodology

Information on geologic, soil, mineral resource, and paleontological resource conditions in the project vicinity was compiled from existing literature, maps, and data, including research and analysis documented in the 2006 Pacific Ethanol EIR and the TRC Geotechnical Investigation.

7.6.3 Environmental Setting

7.6.3.1 Geologic Setting

The project locations are located within a region known as the Great Valley geomorphic province (Great Valley). The Great Valley consists of alluvial plains, approximately 50 miles wide and 400 miles long, in the central part of California. The Great Valley is a trough in which sediments have been deposited almost continuously since the Jurassic Period (approximately 160 million years ago). It is drained by the Sacramento and San Joaquin Rivers, which drain into the San Francisco Bay (California Department of Conservation, 2002).

The lease area is situated within the San Joaquin Valley, immediately adjacent to the east side of the San Joaquin River, and is underlain by the Quaternary-aged Dos Palos Alluvium, which is

described as floodplain deposits. Floodplain deposits in the area can be as thick as approximately 1,400 feet deep. The depth to bedrock in the site area is anticipated to be approximately 200 feet.

7.6.3.2 Topography Setting

The TRC Geotechnical Investigation described the lease area as relatively level and gently sloping to the north with approximately 5 feet of topographic relief. The lease area is approximately 5 to 10 feet higher in elevation than the surrounding area and was initially created by dredge material. The lease area is bordered by the existing Pacific Ethanol production facility to the south and west, and a swale and levee section topped with railroad tracks to the north and east. The bounding swale is approximately 5 feet below the average lease area elevation, and the top of the levee and railroad tracks are approximately 6 to 8 feet above the swale and approximately 1 to 3 feet above the lease area Berth #9 area is flat, impervious (concrete and asphalt) surface that supports one industrial (warehouse) structure. No elevation changes exist at Berth #9 area. Likewise, elevation changes to the public ROW to be utilized for the proposed pipeline is extremely limited as the pipeline is aligned within Port roads, including (Navy Drive, West Washington, Port Road 13, and Port Road 5).

7.6.3.3 Soils

According to the Soil Survey of San Joaquin County, Dello sand and Merritt silty clay loam are mapped in the northern and southern portions of the lease area, respectively (*See Figure* 7.6-1: Soils Map). Dello sand is characterized as a very deep, poorly drained, nearly level (0 to 2 percent slope) soil on flood plains at elevations of 0 to 30 feet mean sea level (msl). The surface layer is typically a pale brown mottled sand about 20 inches thick, which grades to a very pale brown mottle sand that extends to a depth of 60 inches or more. Permeability is rapid, runoff is slow, and the hazard for water erosion is slight. Merritt silty clay loam is characterized as a very deep, poorly drained, nearly level (0 to 2 percent slope) soil on flood plains at elevations of 5 to 50 feet msl. The surface layer is typically a brown silty clay loam about 15 inches thick. The subsoil and upper stratum are mottle light brownish gray and dark gray silty clay loam about 27 inches thick. The lower stratum is light brownish gray, mottled silt loam that extends to a depth of 60 inches. Permeability is moderately slow, runoff is slow, and the hazard for water erosion is slight.

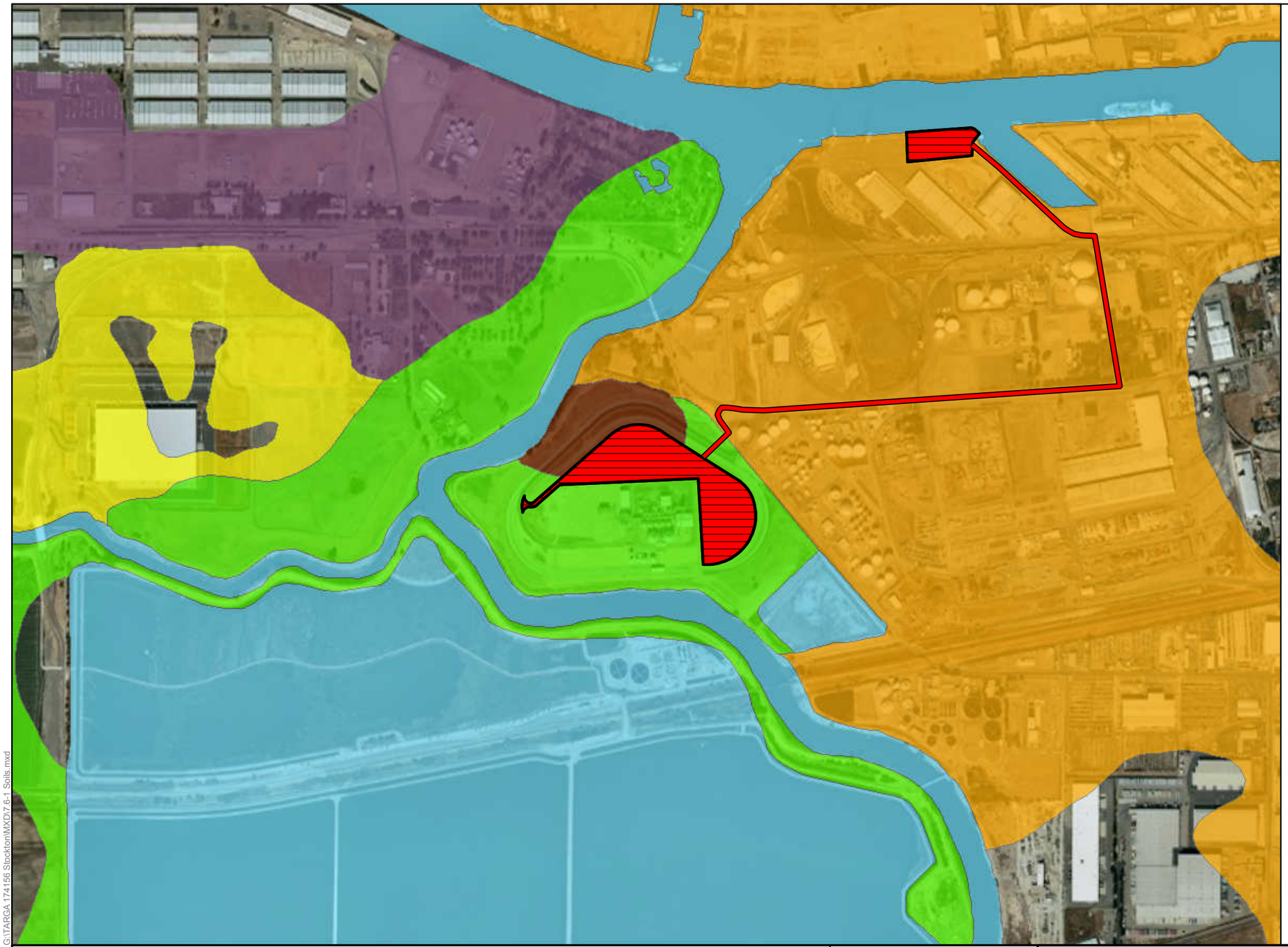
7.6.3.4 Geologic Hazards

<u>Earthquakes</u>

The lease area is not located within a currently designated Alquist-Priolo Earthquake Fault Zone (formerly known as a Special Studies Zone). No known surface expression of active faults is believed to cross the site. Fault rupture through the site is therefore not anticipated (TRC, 2011) (*See Figure* 7.6-2: Fault Map).

The nearest active fault is the Greenville Fault, located approximated 21 miles southwest of the lease area. The Maximum Moment magnitude of the maximum probably earthquake on the

Greenville Fault is estimated to be 6.0. Other nearby faults exhibiting activity within the past 2000 years are the Concord-Green Valley and Hayward faults.



N

0 500 1,000
Feet

Legend

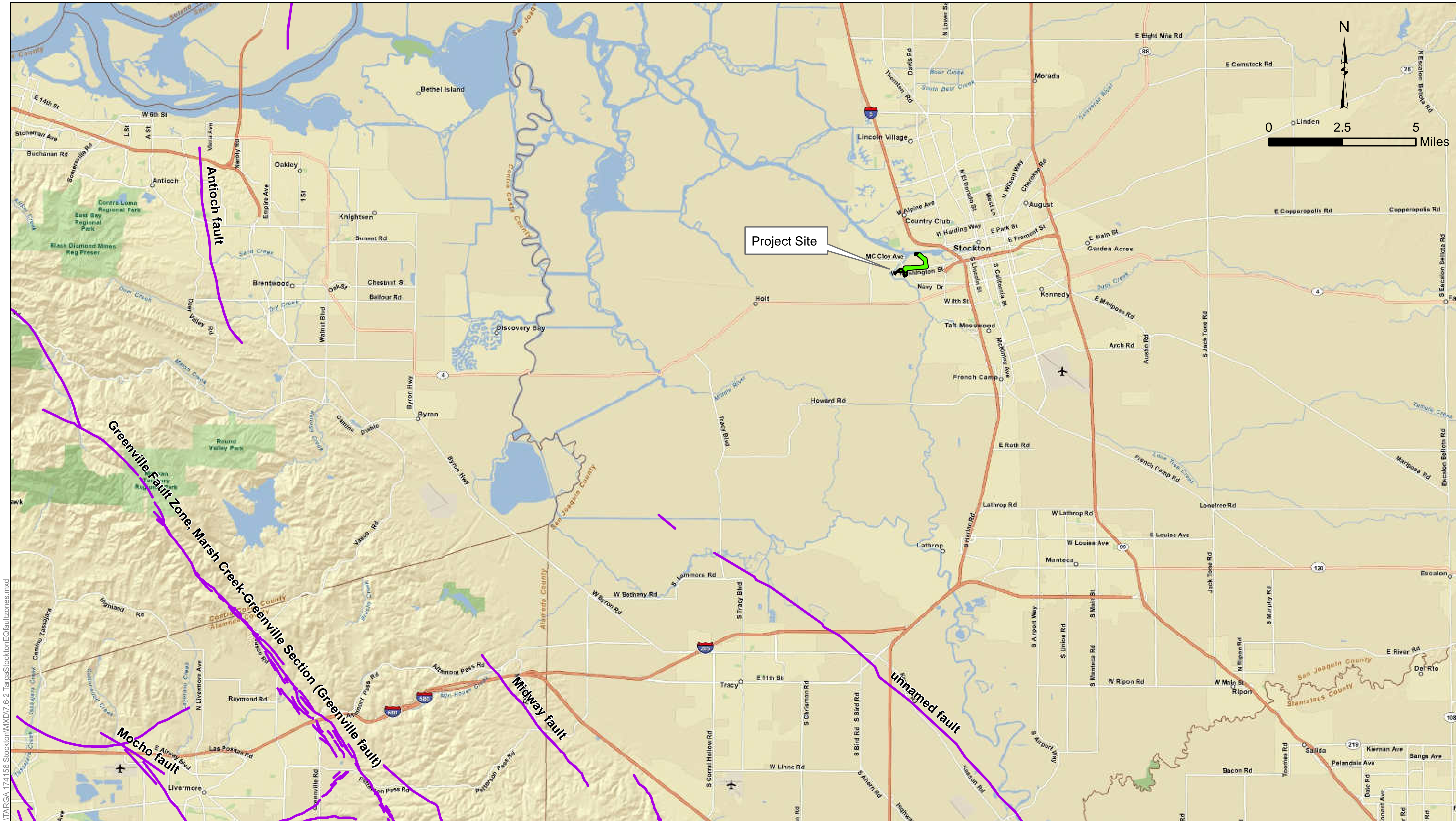
- TARGA terminal and berth
- TARGA product pipeline

NRCS Soil Type

- Dello sand
- Egbert mucky clay loam
- Egbert-Urban land complex
- Merritt silty clay loam
- Yellowlark gravelly loam
- Water

G:\TARGA 174156 Stockton\MXD\7.6-1 Soils.mxd

		SOILS MAP	TARGA
		DATE: Nov 17, 2011 / SCALE: 1:12,000	FACILITY: TARGA TERMINAL STOCKTON, CALIFORNIA
		BY: / FIGURE: 7.6-1	



G:\TARGA 174156 Stockton\MXD\7.6-2 TargaStocktonEQfaultzones.mxd

Legend

- TARGA terminal, product line and berth
- Quaternary Faults

QUATERNARY FAULT MAP

DATE: Nov 17, 2011	SCALE: 1:200,000	FACILITY:	TARGA TERMINAL STOCKTON, CALIFORNIA
BY:	FIGURE: 7.6-2		

TARGA

Seismic Ground Shaking

A qualitative evaluation of geologic hazards, made by TRC as part of their geotechnical investigation, indicated a peak ground surface acceleration of 0.30 g-force (g), which is equal to $S_{DS}/2.5$ as discussed in Item 23 of the California Geological Survey Note 48 (TRC, 2011).

Liquefaction

Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similar to a fluid when subjected to high-intensity ground shaking. An increase in pore pressure occurs as the soil attempts to compact in response to the shaking, resulting in less grain-to-grain solid contact, and therefore loss of strength. Liquefaction occurs when three general conditions exist: shallow groundwater (i.e., 40 feet below ground surface or less); low density, fine-grained sandy soils; and high-intensity ground motion. Effects of liquefaction on level ground can include sand boils, settlement, and bearing capacity failures below structure foundations.

Explorations and analysis performed by TRC concluded that, in general, there appears to be a fairly consistent liquefiable layer across the lease area from approximately 47 to 58 feet below the ground surface. In addition, one location within the surveyed area (CPT-16) had a fairly thick liquefiable layer from approximately 30 to 54 feet. Several sand layers below the design ground water depth (7 feet below the existing grade) may theoretically liquefy resulting in about 0.25 inch to 4 inches of total settlement beneath the proposed tank structures. However, the total liquefaction settlement is approximately 2 inches in the upper 50 feet, except for the area around CPT-16. Differential settlement from liquefaction for shallow foundations and site improvements were estimated to be approximately 1 inch in the upper 50 feet (and 2 inches in the upper 50 feet for an approximately 50-foot radius around CPT-16) (TRC, 2011).

Dry Seismic Settlement

If near-surface soils vary in composition both vertically and laterally, strong earthquake shaking can cause non-uniform densification of loose to medium dense cohesionless soil strata. This results in movement of the near-surface soils. Explorations by TRC encountered possibly 16 to 19 feet of undocumented fill at the lease area. The fill consisted of medium stiff to hard lean clay or silt with varying amounts of sands or loose sands. Because the fill contains loose sand layers and is variable across the lease area, there is a potential for total and differential settlement of non-saturated sand layers (TRC, 2011).

Lateral Spreading

Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying alluvial material toward an open or “free” face such as an open body of water, channel, or excavation. In soils, this movement is generally due to failure along a weak plane, and may often be associated with liquefaction. The San Joaquin River circles the lease area on the north, west, and south. However, the River is generally greater than 200 feet from the lease area boundary and the shallow liquefiable layers are not consistent throughout the lease area. Therefore, the

probability of lateral spreading occurring at the site during a seismic event is relatively low (TRC, 2011).

7.6.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to geology, soils, and seismicity significant if the project would:

- expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
  - strong seismic ground shaking;
  - seismic-related ground failure, including liquefaction;
  - landslides; and/or
  - subsidence;
- result in substantial soil erosion, siltation, changes in topography, the loss of topsoil or unstable soil conditions from excavation, grading or fill;
- be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; and/or
- have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

7.6.5 Impacts and Mitigation Measures

Impacts of the proposed Targa project related to geotechnical factors and soils are addressed in Section 3.6: Geology and Soils of the 2006 Pacific Ethanol EIR. Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented below. The proposed Targa project is within the scope of the geotechnical analysis presented in the 2006 Pacific Ethanol EIR, and there are no changed circumstances since the preparation of this document that require reanalysis of cumulative impacts.

7.6.5.1 2006 Pacific Ethanol EIR Impacts

Impact #3.6.1 – Earthquakes, Seismic-Related Ground Failure, Liquefaction, and Subsidence

A hazard exists of seismically-induced liquefaction and settlement of soils. With proper engineering design of the proposed structures, and site grading in accordance with the California Building Code (CBC), the property is suitable for the currently proposed development. Detailed recommendations for the proposed development, including site preparation, grading, foundation type, and design, are provided in the Preliminary Geotechnical Exploration, Engineering, and Seismic Site Hazard Report. The impact is considered less than significant. Geotechnical engineer's recommendations would be incorporated into the project design to assure no significant geological impact occurs.

Impact #3.6.2 – Expansive Soils Hazards

The proposed Targa project would be constructed on Dello sand and Merrit silty clay loam, both of which exhibit no expansion related hazards. In addition, the facility would be constructed in compliance with the Uniform Building Code; therefore, no impacts are anticipated.

Impact #3.6.3 – Cumulative Impacts

The proposed Targa project would be constructed in compliance with the Uniform Building Code, and therefore, would not pose any substantial cumulative impacts to the safety of people and/or structures with regard to local soils and geology.

7.6.5.2 2006 Pacific Ethanol EIR Mitigation Measures

No mitigation measures were recommended.

7.6.5.3 Targa Stockton Terminal Project-specific Impacts

The project would be constructed to meet the safety standards listed in the Uniform Building Code. Best Management Practices (BMPs) for control of erosion would be executed on site as outlined in the StormwaterSWPPP prepared for the City of Stockton and Stockton Port District. Grading and erosion control plans would be prepared in accordance with the City's engineer requirements for improvement plans. A detailed geotechnical survey was completed and grading, soil compaction, and structural design would be implemented in accordance with the recommendations of the geotechnical report (see Appendix I: Geotechnical Report). No significant impacts are anticipated.

7.6.5.4 Project-specific Mitigation Measures

No mitigation measures are recommended.

7.6.6 Geology, Soils, and Seismicity Initial Study Responses

Table 7.6-1: Geology, Soils, and Seismicity Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☑	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? *Refer to Division of Mines and Geology Special Publication 42*.	☐	☐	☐	☐	☑
ii) Strong seismic ground shaking?	☐	☐	☐	☑	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☑	☐
iv) Landslides?	☐	☐	☐	☐	☑
b) Result in substantial soul erosion or the loss of topsoil?	☐	☐	☐	☑	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☑	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑	☐

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☐	☑

7.6.7 Responses to Initial Study Questions

7.6.7.1 Exposed People to Potential Substantial Adverse Effects: Less than Significant

It is highly improbable that the proposed Targa project would be the cause of loss of life or other injury from risks associated with geologic and soil factors of the proposed lease area, pipeline route, or Berth #9. The improvements of the proposed Targa project will be constructed in accordance with local, State, and National regulations (as will be discussed in ensuing sections of the document). Included in these regulations is the CBC (Chapter) which provides specific seismic regulations as discussed below to reduce risks to acceptable levels. The proposed Targa project will be constructed to these standards, and as such, will result in less than significant effects related to exposure to loss of life and/or injury.

7.6.7.2 Alquist-Priolo Earthquake Faults: No Impact

The nearest active fault is the Greenville Fault, located approximately 21 miles southwest of the lease area (2006 Pacific Ethanol EIR, page 3-52). The lease area is not located within a currently designated Alquist-Priolo Earthquake Fault Zone and no known surface expression of active faults is believed to cross the site; therefore, fault rupture through the site is not anticipated (TRC, 2011). There would be no impact.

7.6.7.3 Ground Shaking: Less than Significant

The 2006 Pacific Ethanol EIR indicated that the Greenville Fault, located approximately 21 miles southwest of the lease area, has historically produced a peak ground acceleration of 0.15g in Brentwood, approximately 30 miles west of the lease area (2006 Pacific Ethanol EIR, page 3-52). According to the TRC Geotechnical Investigation, current practice indicates a peak ground surface acceleration of 0.30g to be expected to occur at the site. The proposed Targa project would be constructed to meet the safety standards established by Uniform Building Code and the API Standards for Petroleum Storage Tanks (API Standards). The pipeline would be constructed to appropriate API, ASME, and NFPA standards. Adherence to applicable seismic standards requirements reduces this impact to a less-than-significant level.

7.6.7.4 Liquefaction: Less than Significant

The 2006 Pacific Ethanol EIR identified potentially liquefiable sediments (loose, saturated sand) in several borings performed at the lease area at depths of approximately 40 feet below grade. The 2006 Pacific Ethanol EIR stated that several of the soil layers beneath the highest anticipated level of groundwater (9 feet below grade) would be expected to liquefy or experience liquefaction induced settlement from a maximum credible earthquake (MCE) magnitude of 6.8 and a ground acceleration of 0.3g (2006 Pacific Ethanol EIR, page 3-52).

All structures would be designed to withstand strong ground motion and ground failure (liquefaction) resulting from a design earthquake in accordance to the adopted API standards. The TRC Geotechnical Investigation indicates that some of the sand and silt layers encountered may theoretically liquefy and result in post-seismic total and differential settlement. The TRC Geotechnical Investigation recommends the proposed tank structures (ringwall and floor) be supported on deep foundations consisting of driven, precast, prestressed concrete friction piles or augered cast-in-place piles. In order to reduce the potential for settlements due to liquefaction impacting pile foundations, the tank foundation design would extend each pile to a depth of at least 70 feet below grade. It is also stipulated in the Geotechnical Investigation that the foundations for the tank structures within an approximately 50 foot radius around CPT-16 be designed using downdrag to a depth of 40 feet. The TRC Geotechnical Investigation also states that the proposed site buildings may be supported on spread footings bearing on at least five feet of engineered fill, and the steel structures may be supported on spread footings bearing on at least five feet of engineered fill or drilled piers. The Geotechnical Investigation further stated that the above ground portion of the pipeline would require support by steel supports that meet the CBC standards and that the prior to the final placement of any buried pipeline, the consultation of a corrosion engineer would be required. Such measures would ensure adequate protection of the pipeline (both against corrosion and for means of support). Targa would incorporate the recommended project design specifications outlined in the TRC Geotechnical Investigation; therefore, no additional-project specific mitigation measures are proposed and impacts resulting from liquefaction are anticipated to be less than significant.

7.6.7.5 Landslides: No Impact

The proposed lease area, pipeline route, and Berth #9 are relatively level and gently sloping to the north with approximately 5 feet of topographic relief (TRC, 2011) furthermore, the proposed pipeline will be buried in the existing public ROW, and will be placed upon compacted soils (per the Geotechnical Report). Where buried, upon completion of excavation efforts for pipeline placement, the surrounding ground will be leveled to ensure that no landslides will occur from any soil disturbance. Likewise, any construction efforts at Berth #9 area will not result serious earthwork or ground disturbance, and will not result in the potential of shifting topography that would lead to landslides. In addition, the 2006 Pacific Ethanol EIR did not identify any potential project impacts from landslides. The lack of significant slopes on or near the Port indicates that the hazard from slope instability, both landslides and debris flows, is negligible. Therefore, no impacts resulting from landslides are anticipated.

7.6.7.6 Subsidence: Less than Significant

Some of the sand and silt layers at the proposed lease area may theoretically liquefy and result in post-seismic total and differential settlement. The 2006 Pacific Ethanol EIR concluded a hazard exists of seismically-induced liquefaction and settlement of soils. However, with proper engineering design of the proposed structures, and site grading in accordance with the CBC, the proposed lease area is suitable for the development proposed in the 2006 Pacific Ethanol EIR. Detailed recommendations provided in the *Preliminary Geotechnical Exploration Engineering, and Seismic Site Hazard Report (2006)* incorporated into the project design would assure no significant geological impact occurs and the impact from a seismically-induced liquefaction and settlement of soils would be less than significant (2006 Pacific Ethanol EIR, page 3-52). As recommended in the TRC Geotechnical Investigation, foundations would be designed to resist or accommodate post-seismic total and differential settlement; therefore, this impact would be less than significant and no project specific mitigation measures are required.

7.6.7.7 Soil Erosion: Less than Significant

Geotechnical investigations performed in 1990, 2006, and 2011, revealed there is 6 to 14 feet of undocumented fill at the proposed lease area, and the fill consists of medium stiff to hard lean clay or silt with varying amounts of sands or loose clayey sand. Below the fill layer is a layer of medium stiff to stiff lean clay with varying amount of sand and loose silty sand to approximately 16 to 19 feet below ground surface. The proposed lease area is covered with low standing vegetation and is relatively level and gently sloping to the north with approximately 5 feet of topographic relief (TRC, 2011).

As recommended in the TRC Geotechnical Investigation, all vegetated areas would be stripped to sufficient depth to remove all surface vegetation and topsoil containing greater than 3 percent organic matter by weight (estimated to be a depth of 3 inches). The stripped material would be removed from the proposed lease area or stockpiled for use in landscaped areas. The upper portion of the undocumented fill material would be removed and replaced with compacted fill for the Targa buildings, pipelines, and improvements. Fill removal would extend at least five feet below building foundations and at least two feet below pavement subgrade and improvements.

Since the proposed lease area is relatively flat, the potential for substantial soil erosion is considered minimal. BMPs for control of erosion would be implemented as part of the City's grading and building permits to reduce erosion of soils on the proposed lease area. BMPs would be implemented as part of the encroachment permits for the pipeline installation within public right-of-ways, which would mitigate potential impacts on soil erosion as a result of construction. Such BMPs could include, but is not limited to: the utilization of a sediment trap for all drains, straw bale barriers, the placement of mulch (straw or hydraulic) throughout the property, and the placement of geotextile mats for any of the sloped areas. In addition, the requirements of the State General Construction Stormwater Permit for projects would provide further review, monitoring, and mitigation as required by the State Regional Water Quality Control Board, which would ensure that this impact would be less than significant.

7.6.7.8 Unstable Soils: Less than Significant

The 2006 Pacific Ethanol EIR identified potentially liquefiable sediments (loose saturated sand) in several borings performed at the site at depths of approximately 40 feet below grade. It suggested that several of the soil layers beneath the highest anticipated level of groundwater (9 feet below grade) would be expected to liquefy or experience liquefaction induced settlement from a maximum credible earthquake (MCE) magnitude of 6.8 and a ground acceleration of 0.3g (2006 Pacific Ethanol EIR, page 3-52). All grading would be performed in accordance with the recommended grading specifications contained in the City of Stockton Grading Regulations, which would reduce any potential impacts to a less than significant level.

The TRC Geotechnical Investigation indicates that some of the sand and silt layers encountered may theoretically liquefy and result in post-seismic total and differential settlement. Therefore, foundations would be designed to resist or accommodate this settlement. In addition, because the undocumented fill at the lease area contains loose sand layers and fill is variable across the lease area, there is the potential for total differential settlement of non-saturated sand layers. Nevertheless, the probability of lateral spreading occurring on the lease area during a seismic event is relatively low as the shallow liquefiable layers are not consistent throughout the lease area, and the San Joaquin River that circles the lease area on the north, west, and south, is generally greater than 200 feet from the site boundary. By performing measures incorporated in the Geotechnical Report, the proposed Targa project will ensure that foundations for the proposed tank farm are adequate for the desired purposes, thereby resulting in less than significant impacts.

7.6.7.9 Expansive Soils: Less than Significant

As stated in the 2006 Pacific Ethanol EIR neither the Dello sand nor the Merritt silty clay loam on which the project would be constructed exhibit expansion related hazards (2006 Pacific Ethanol EIR, page 3-58). However, the TRC Geotechnical Investigation did indicate that surficial soils of the lease area are moderately expansive. As recommended in the TRC Geotechnical Investigation, the building's slab-on-grade and exterior concrete flatwork would be supported on a layer of non-expansive fill; therefore, no additional-project specific mitigation measures are proposed and the resulting impacts would be less than significant.

7.6.7.10 Septic Tanks and Wastewater Disposal System: No Impact

The 2006 Pacific Ethanol EIR did not identify that soils would be incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater. No in-ground sewage disposal is proposed. Therefore, no impacts are anticipated.

7.7 GREEN HOUSE GAS EMISSIONS

This section describes the potential effect on greenhouse gas emissions as a result of implementing the proposed Targa project. In addition, this section provides a discussion of federal and state regulations regarding GHG emissions. Potential impacts to air quality, as a general matter, associated with implementation of the proposed Targa project, were previously discussed in this document. (*See:* Section 7.3). The 2006 Pacific Ethanol EIR did not specifically address GHGs, as CEQA documentation did not require specific addressing of the issue. However, updates to the CEQA Guidelines codified in March 2010, have required lead agencies to consider the potential for a project to result in significant emissions of GHGs. The updated Guidelines state that the leading factors that lead agencies should consider in determining the significance of a project's GHG emissions is whether the project's anticipated emissions would comply with applicable regulations and whether an individual project's incremental contribution to global climate change may have a cumulatively considerable impact. These are the primary considerations to be discussed in the following section of this document.

7.7.1 Background

GHGs have been regulated internationally, federally, and at the state level for nearly a quarter of a century. While several regulations of the matter have failed, and the successes of others have yet to be determined, this section will discuss the application of several of these regulations as related to the proposed Targa project.

7.7.1.1 International Regulations

In 1988, nearly a decade after the first World Climate Conference (hosted by the World Meteorological Organization) was held to discuss the anthropogenic (human) effects of climate change, the United Nations established the Intergovernmental Panel on Climate Change (IPCC). As a result of subsequent years of IPCC discussions, the IPCC developed a worldwide treaty that outlined several general objectives and principles aimed at limiting worldwide GHG emissions. Known as the United Nation's Framework Convention on Climate Change (UNFCCC) agreement (developed in 1990, signed in 1992, and effective as of 1994). In November 1998, the IPCC hosted another series of meetings aimed at the worldwide reduction of GHGs. Throughout the course of these meetings, the IPCC developed the Kyoto Protocol which required specific reductions of GHGs (in particular, the Kyoto Protocol required a baseline each county committed to a particular goal in emissions reductions GHG emission reduction for the signatory countries). While the Kyoto Protocol was successful, in that it heightened global awareness of increasing GHGs, the Kyoto Protocol was seen by many as a failure, as the US, and several other nations which emit mass GHG emissions failed to sign or ratify the Kyoto Protocol. As such, these nations were never bound by the goals and implementation mechanisms of the Kyoto Protocol.

Again in December 2009, representatives from 170 countries convened to prepare an updated international treaty for GHG emission reductions, known as the Copenhagen Protocol. The Copenhagen Protocol seeks to establish a two degree limit (Celsius) on global warming by 2050. While the Copenhagen Protocol demonstrated the international attempt to regulate GHG

emissions, many have considered the negotiations a failure, as the document produced failed to provide a legally binding document on the participant nations.

7.7.1.2 Federal Regulations

In October 2009, EPA issued a Final Rule for mandatory reporting of GHG emissions. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufactures of heavy-duty and off-road vehicles and vehicle engines, and requires annual reporting of emissions. The Final Rule went into effect on December 29, 2009, with data collection between January 1, 2010, and March 2011. This rule does not regulate the emission of GHGs, it only requires the monitoring and reporting of greenhouse gas emissions for sources above specific thresholds. Additional legislative measures have been taken to attempt to regulate GHGs, in other manners, however; each has failed in the process (the most recent attempt was in the American Clean Energy and Security Act of 2009 (Waxman-Markey Bill) which had success in the House of Representatives, but failed in receive necessary support in the Senate.

7.7.1.3 State Regulations

As previously discussed, CARB is responsible for implementing state policy to address air quality issues and global climate change. CARB, in coordinating and administering state air pollution control programs adopted Resolution 07-55 on December 6, 2007. Resolution 07-55 approved a 427 million metric ton of CO2e as the statewide GHG emissions limit as of 2020. This statewide target is equivalent to 1990 level (of CO2e measured in the atmosphere), a common goal for several of California's emissions reductions programs (*See:* Section 7.3 for a discussion on AB 32 which implements a similar goal). Several of these programs are inapplicable to the proposed Targa project, however; only Executive Order S-3-05, which mirrors AB 32, is briefly discussed below.

Executive Order S-3-05 (Statewide GHG Targets)

California Executive Order S-03-05 (June 1, 2005) mandated a reduction of GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. Although the 2020 target is the core of AB 32, and has effectively been incorporated into AB 32, the 2050 target remains the goal of the Executive Order.

7.7.1.4 Local Regulations

The SJVAPCD adopted the CCAP in August 2008 to assist lead agencies in assessing and reducing the impacts of project specific GHG emissions on global climate change. According to the CCAP, The SJVAPCD policy for assessing the significance of stationary source projects is based on the use of Best Performance Standards (BPS) or the demonstration of GHG emissions reductions of 29 percent from a business-as-usual scenario. For the proposed Targa project, the storage tanks are the only stationary source for which BPS could apply. According to the CCAP, projects implementing BPS would have a less than significant impact. Considering there are no GHG emissions associated with the stationary sources of this project, BPS will not be necessary for the control of GHG and the impact is less than significant.

7.7.2 Methodology

A qualitative assessment of the GHG emissions resulting from the project was previously discussed in Section 7.3 and it was determined that there would be no significant impacts resulting from the construction and operation of the project. (*See* Section 7.3)

7.7.3 Environmental Setting

The environmental setting was previously discussed in detail in the air quality section (*See:* Section 7.3). Greenhouse gasses and various forms thereof were defined and described. To avoid duplicative discussions, please refer to Section 7.3.

7.7.4 Standards of Significance

The environmental analysis of the proposed Targa project would consider the following factors as a significant impact to greenhouse gas emissions if the project would:

- Generate greenhouse gas emissions. either directly or indirectly, that may have a significant impact on the environment; and

- Conflict with an applicable plan, policy or regulations adopted for the purpose of reducing the emissions of greenhouse gasses.

7.7.5 Impacts and Mitigation Measures

7.7.5.1 2006 Pacific Ethanol EIR Impacts

GHG emissions were not noted as having an impact in the 2006 Pacific Ethanol EIR. At the time of the 2006 Pacific Ethanol EIR, CEQA did not require the review of GHG emissions on a stand-alone basis.

7.7.5.2 2006 Pacific Ethanol EIR Mitigation Measures

No mitigation measures identified in the 2006 Pacific Ethanol EIR that were applicable to greenhouse gasses. No project-specific mitigation measures were identified to reduce potential impacts for the proposed Targa project as there are no impacts due to GHG emissions.

7.7.5.3 Targa Stockton Terminal Project-specific Impacts

No specific mitigation measures will be required for the proposed Targa project mitigation measures discussed in the air quality section will be applicable to the limitation of GHGs. In particular, these measures include: AQ-3: Use alternative fuel or catalyst-equipped diesel construction equipment; AQ-4: Minimize idling time (e.g., 10-minute maximum) AQ-5: Replace fossil-fueled equipment with electrically driven equivalents when possible; AQ-12: Reduce unnecessary idling usually needed to maintain climate control in the cab of trucks by offering electric power options; and AQ-13: Equip trucks with NO_x reduction catalyst systems (*See:*

Section 7.3 for complete discussion). Through the implementation of these mitigation measures, the GHGs emitted from the proposed Targa project will be found to be less than significant.

7.7.6 Green House Gas Initial Study Responses

Table 7.7-1 Green House Gas Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☑	☐	☐	☐
b) Conflict with an applicable plan, policy or regulations adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	☐	☐	☑

7.7.7 Response to Initial Study Questions

7.7.7.1 Generate Green House Gas Emissions: Less Than Significant Impact with Mitigation Incorporated

As previously discussed, the proposed Targa project, upon completion of construction, will not release GHGs, as it entails the terminalling of various fuels which will be wholly contained within above ground storage tanks, which will be constructed to eliminate the release of GHGs into the atmosphere. Furthermore, mitigation measures will be employed throughout the transportation of fuels that will be housed at the proposed Targa project, thereby limiting GHG emissions (*See:* Section 7.3 discussion of AMP used at dock to limit air pollution from barges that "hotel" at the dock). Additionally, while GHGs will likely be emitted throughout the construction phase (through the utilization of heavy duty construction equipment), the construction methods will be temporary and will not cause a significant increase in GHG emissions (*See:* Section 7.3 for detailed analysis). Additional mitigation measures will be employed throughout the construction phase to ensure that air pollution emitted from the construction equipment is limited. As such, the impact on GHG emissions from the proposed Targa project is less than significant with mitigation measures incorporated.

7.7.7.2 Conflict with an Applicable Plan Adopted to Reduce Green House Gas Emissions: No Impact.

As discussed in the air quality section (*See:* Section 7.3), the proposed Targa project will not conflict with the CCAP, and therefore, the proposed Targa project will have no impact on any such plan. The primary concern of the CCAP is to demonstrate the reduction of 29 percent in GHGs from a business-as-usual scenario. For the proposed Targa project, the storage tanks are the only stationary source for which BPS could apply. According to the CCAP, projects implementing BPS would have a less than significant impact. Considering there are no GHG emissions associated with the stationary sources of this project, BPS will not be necessary for the control of GHG and there will be no impact to the local plan that has been adopted to reduce GHGs.

7.8 HAZARDS AND HAZARDOUS MATERIALS

This section contains a description of hazards and hazardous materials in the Port area and existing regional hazards, and hazardous material characteristics found in the proposed lease area, pipeline route, and Berth #9. The discussion is based primarily on information contained in the 2006 Pacific Ethanol EIR, the Phase I Environmental Site Assessment prepared for the proposed lease area in November of 2011 (Appendix H), and other available environmental hazard literature. These data sources were supplemented by observations made during site reconnaissance visits conducted on November 8, 2011.

Hazards related to the proposed Targa project primarily fall under two categories based on the origin of the hazard: (1) hazards created by project operations that impact facilities and/or people on the proposed lease area, pipeline route, and Berth #9 or nearby and (2) hazards created by nearby uses that impact the facilities and/or people on or near the proposed lease area, pipeline route and Berth #9. Exposure to hazardous chemicals could fall under both categories (hazardous chemicals could originate onsite or offsite), whereas risk to people and property on the proposed lease area by proximity to airports would fall under the second category.

7.8.1 Background

7.8.1.1 Hazardous Substances Defined

Hazardous materials can be defined as such based on various criteria, including toxicity, ignitability, corrosivity, or reactivity. The term “hazardous material” is defined as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment. (California Code of Regulations (CCR) Title 22, Division 4.5 Chapter 10, Article 2, §66260.10).

Once a hazardous material becomes ready for discard, it becomes a hazardous waste. A hazardous waste, for the purpose of this report, is any hazardous material that is abandoned, discarded, or (planned to be) recycled. In addition, hazardous wastes may occasionally be generated by actions that change the composition of previously non-hazardous materials. The same criteria: toxicity, ignitability, corrosivity, or reactivity that renders a material hazardous makes waste hazardous. (CCR Tit. 22, Div. 4.5 Ch. 10, Art. 3).

7.8.1.2 Regulatory Context

Numerous federal, state, and local agencies regulate the storage, use, transport, generation, or handling of these materials. The transfer, handling, storage, and transport of hazardous liquid bulk cargoes within the Port are governed by the San Joaquin County Environmental Health Department (SJCEHD).

Federal Regulations

Regulations Pertaining to Hazardous Substances

Federal regulatory agencies include the United States Environmental Protection Agency (U.S. EPA), Occupational Safety Health Administration (Fed/OSHA), the United States Department of Transportation (DOT) and the National Institute of Health (NIH). The following represent some of the federal laws and guidelines governing hazardous substances:

- Federal Water Pollution Control Act (Clean Water Act, CWA) (33 USC Section 1251, et seq./40 Code of Federal Regulations (CFR))
- Clean Air Act (CAA) (42 US Code Section 7401, et seq./40 CFR)
- Occupational Safety and Health Act (29 US Code Sections 651, et seq./29 CFR)
- Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (42 US Code Section 9601, et seq./29, 40 CFR)
- Superfund Amendments and Reauthorization Act Title III (42 USC Section 11001, et seq./29, 40 CFR)
- Resource Conservation and Recovery Act (RCRA) (42 US Code Section 6901, et seq./40 CFR)
- Safe Drinking Water Act (42 US Code Section 300f, et seq./40 CFR)
- Toxic Substances Control Act (15 US Code Section 2601, et seq./40 CFR)
- Hazardous Materials Transportation Act (49 U.S.C. 1801, et seq.) and regulations issued under that Act by the Department of Transportation
- Oil Pollution Act (33 US Code Section Sections 2701-2761/30, 33, 40, 46, 49 CFR)
- Pollution Prevention Act (42 US Code Section 13101, et seq./40 CFR)

At the federal level, the principal agency regulating the generation, transport, and disposal of hazardous substances is the U.S. EPA, under the authority of RCRA. U.S. EPA regulates hazardous substance sites under CERCLA. Applicable federal regulations are contained primarily in Titles 29, 40, and 49 of the CFR.

Hazardous Substances Worker Safety Requirements

The Fed/OSHA is the agency responsible for ensuring worker safety. Fed/OSHA sets federal standards for implementation of training in the work place, exposure limits, and safety procedures in the handling of hazardous substances (as well as other hazards). Fed/OSHA also establishes criteria by which each state can implement its own health and safety program.

Hazardous Materials Transportation

The DOT regulates the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act. This Act specifies driver training requirements, load labeling procedures, and container design and safety specifications. Transporters of hazardous wastes must also meet the requirements of additional statutes such as RCRA.

Hazardous Substances Handling Requirements

RCRA established a federal hazardous substance "cradle-to-grave" regulatory program that is administered by U.S. EPA. Under RCRA, U.S. EPA regulates the generation, transportation, treatment, storage and disposal of hazardous substances. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the "cradle-to-grave" and specifically prohibits the use of certain techniques for the disposal of certain hazardous substances.

Regulations Pertaining to Safety at Marine Terminals and Vessels

A number of federal laws regulate safety of marine terminals and vessels. These laws address, among other things, design and construction standards, operational standards, and spill prevention and cleanup. Regulations to implement these laws are contained primarily in CFR Titles 33 (Navigation and Navigable Waters), 40 (Protection of Environment), and 46 (Shipping).

The most recent act to address spill prevention and response, Oil Pollution Act of 1990 (OPA90), was enacted to expand prevention and preparedness activities, improve response capabilities, ensure that shippers and oil companies pay the costs of spills that do occur, and establish an expanded research and development program. OPA 90 also establishes a $1 billion Oil Spill Liability Trust Fund, funded by a tax on crude oil received at refineries. A Memorandum of Understanding (MOU) was established to divide areas of responsibility. The USCG is responsible for tank vessels and marine terminals, the EPA for tank farms, and the Research and Special Programs Administration (RSPA) for pipelines. Each of these agencies has developed regulations for their area of responsibility.

All facilities and vessels that have the potential to release oil into navigable waters are required by OPA 90 to have up-to-date oil spill response plans and to submit such to the appropriate federal agency for review and approval. Of particular importance in OPA 90 is the requirement for facilities and vessels to demonstrate that they have sufficient response equipment under contract to respond to and clean up a worst-case spill.

Other key laws addressing oil pollution include:

- Federal Water Pollution Control Act of 1972;
- Clean Water Act of 1977;
- Water Quality Act of 1987;
- Act of 1980 to Prevent Pollution from Ships;

- RCRA of 1978;
- Hazardous and Solid Waste Act of 1984; and
- Refuse Act of 1899.

Responsibilities for implementing and enforcing the federal regulations addressing terminals, vessels, and pollution control fall to a number of agencies, as described in the following sections.

U.S. Coast Guard

The USCG, through CFR Title 33 (Navigation and Navigable Waters) and Title 46 (Shipping), is the federal agency responsible for vessel inspection, marine terminal operations safety, coordination of federal responses to marine emergencies, enforcement of marine pollution statutes, marine safety (navigation aids, etc.), and operation of the National Response Center (NRC) for spill response. USCG is also the lead agency for offshore spill response. The USCG implemented a revised vessel boarding program in 1994 designed to identify and eliminate substandard ships from U.S. waters. The program pursues this goal by systematically targeting the relative risk of vessels and increasing the boarding frequency on high risk (potentially substandard) vessels. Each vessel's relative risk is determined through the use of a matrix that factors the vessel's flag, owner, operator, classification society, vessel particulars, and violation history. Vessels are assigned a boarding priority from I to IV, with priority I vessels being the potentially highest risk. The USCG is also responsible for reviewing marine terminal Operations Manuals and issuing Letters of Adequacy upon approval. The USCG issued regulations under OPA 90 addressing requirements for response plans for tanker vessels, offshore facilities, and onshore facilities that could reasonably expect to spill oil into navigable waterways.

Based on several studies that show the use of double-hull vessels will decrease the probability of releases when tanker vessels are involved in accidents, the USCG issued regulations addressing double-hull requirements for tanker vessels. The regulations establish a timeline for eliminating single-hull vessels from operating in the navigable waters or the Exclusive Economic Zone (EEZ) of the U.S. after January 1, 2010, and double-bottom or double-sided vessels by January 1, 2015. Only vessels equipped with a double hull, or with an approved double containment system will be allowed to operate after those times. The phase-out timeline is a function of vessel size, age, and whether it is currently equipped with a single hull, double bottom, or double sides. The phase out began in 1995 with 40-year-old or older vessels equipped with single hulls between 5,000 and 30,000 gross tons, 28 year or older vessels equipped with single hulls over 30,000 gross tons, and 33 year or older vessels equipped with double bottoms or sides over 30,000 gross tons. All new tankers delivered after 1993 must be double hulled. Double-bottom or double-sided vessels can essentially operate 5 years longer than single-hull vessels.

The USCG oversees lightering operations (transferring of products from one ship to another) outside port areas through six general mechanisms: vessel design requirements; operational procedures; personnel qualifications; oil spill contingency planning and equipment requirements; vessel inspection; and monitoring. Three separate sets of regulations have been promulgated by the USCG regarding lightering activities. One set applies to lightering in inshore waters. For this purpose, inshore waters mean all waters inside of 12 nautical miles from the coast, including all internal waters (i.e., lakes, bays, sounds, and rivers). The second set of regulations applies to

lightering in all offshore waters, except for designated lightering zones. Offshore, for this purpose, means 12-200 miles off the coast. The third, and most comprehensive, set of regulations applies in designated lightering zones that are more than 60 miles off the coast. The Coast Guard Authorization Act of 1996 requires that the USCG coordinate with the Marine Board of the National Research Council (NRC) to conduct studies on the risks of oil spills from lightering off the U.S. coasts.

U.S. Environmental Protection Agency (EPA)

The EPA is responsible for the National Contingency Plan and acts as the lead agency in response to an onshore spill. EPA also serves as co-chairman of the Regional Response Team, which is a team of agencies established to provide assistance and guidance to the on-scene coordinator (OSC) during the response to a spill. The EPA also regulates disposal of recovered oil and is responsible for developing regulations for Spill Prevention, Control, and Countermeasures (SPCC) Plans. SPCC Plans are required for non-transportation-related onshore and offshore facilities that have the potential to spill oil into waters of the U.S. or onto adjoining shorelines. The proposed Targa Stockton Terminal would be required to prepare and maintain a SPCC Plan.

Department of Commerce through the National Oceanic and Atmospheric Administration

The National Oceanic and Atmospheric Administration (NOAA) provides scientific support for oil or other hazardous materials spill response and contingency planning, including assessments of the hazards that may be involved, predictions of movement and dispersion of oil and hazardous substances through trajectory modeling, and information on the sensitivity of coastal environments to oil and hazardous substances. They also provide expertise on living marine resources and their habitats, including endangered species, marine mammals and National Marine Sanctuary ecosystems, and information on actual and predicted meteorological, hydrological, and oceanographic conditions for marine, coastal, and inland waters, and tide and circulation data for coastal waters.

Department of the Interior

The Department of the Interior (DOI), through its various offices, provides expertise during hazardous materials spills in a number of areas, as described below:

- USFWS – Anadromous and certain other fishes and wildlife, including endangered and threatened species, migratory birds, and certain marine mammals; waters and wetlands; and contaminants affecting habitat resources.
- U.S. Geological Survey (USGS) – Geology, hydrology (groundwater and surface water), and natural hazards.

Department of Defense

The Department of Defense (DOD), through the Corps, is responsible for reviewing all aspects of a project and/or spill response activities that could affect navigation. The Corps has specialized equipment and personnel for maintaining navigation channels, removing navigation obstructions, and accomplishing structural repairs.

State Regulations

Regulations Pertaining to Hazardous Substances

The agency which has primary State jurisdiction to regulate and enforce hazardous materials regulations within the Port is SJCEHD. However, the Regional Water Quality Control Board (RWQCB) and the California Department of Toxic Substances Control (DTSC) have secondary jurisdiction, and in instances in which hazardous waste may cause air pollution, the SJVAPCD would also have jurisdiction. Lastly, both the federal and state Occupational Safety and Health Administration (Fed/OSHA and Cal/OSHA) in the preparation of hazardous materials remediation site safety plans intended to protect the health of construction and contamination remediation workers.

The California Environmental Protection Agency (Cal/EPA) and the Office of Emergency Services (OES) establish rules governing the use of hazardous substances. The SWRCB has primary responsibility to protect water quality and supply.

Cal/EPA was created in 1991 to better coordinate state environmental programs, reduce administrative duplication, and address the greatest environmental and health risks. Cal/EPA unifies the state's environmental authority under a single accountable cabinet-level agency. The Secretary for Cal/EPA oversees the following agencies: Air Resources Board, Integrated Waste Management Board, Department of Pesticide Regulation, SWRCB, DTSC, and OES.

Applicable State laws include the following:

- Porter Cologne Water Quality Control Act (California Water Code Section 13000-14076/23 CCR)
- California Accidental Release Prevention Law (California Health and Safety Code Section 25531, et seq./19 CCR)
- California Fire Code (California Health and Safety Code Section 13000, et seq./19 CCR)
- Uniform Fire Code (California Code of Regulation Section 1924(b), 3221, 6150, 6184)
- Carpenter-Presley-Tanner Hazardous Substance Account Act "State Superfund" (California Health and Safety Code Section 25300, et seq./California Revenue and Tax Code Section 43001, et seq.)
- California Building Code (California Health and Safety Code Section 18901, et seq./24 CCR)
- Hazardous Waste Control Law (HWCL) (California Health and Safety Code Section 25100, et seq./22 CCR)
- California Occupational Safety and Health Act (Cal/OSHA) (California Labor Code Section 6300-6718/ 8 CCR)
- Hazardous Materials Handling and Emergency Response "Waters Bill" (California Health and Safety Code Section 25500, et seq./19 CCR)
- Hazardous Substances Act (California Health and Safety Code Section 108100, et seq.)
- Safe Drinking Water and Toxic Enforcement Act "Proposition 65" (California Health and Safety Code Sections 25180.7, 25189.5, 25192, 25249.5-25249.13/8, 22 CCR)

- California Air Quality Laws (California Health and Safety Code Section 39000, et seq./17 CCR)
- California Clean Air Act (California Health and Safety Code Section 44300, et seq./17 CCR)
- Above Ground Petroleum Storage Act (California Health and Safety Code Section 25270, et seq.)
- Hazardous Substances Information and Training Act (Cal/OSHA) (Worker Right-to-Know Law) (California Labor Code Section 6360, et seq.)
- Hazardous Substances Release Response Plans and Inventory Act
- Air Toxics "Hot Spots" Information and Assessment Act of 1987 (A.B. 2588) (California Health and Safety Code Section 44300, et seq.) (17 California Code of Regulations Section 90700, et seq.)

Hazardous Substances Handling Requirements

Within the Cal/EPA, DTSC has primary regulatory responsibility, with delegation of enforcement to disposal of hazardous substances under the authority of the HWCL. Regulations implement the HWCL list of hazardous chemicals and more common substances that may be considered hazardous; establish criteria for identifying, packaging and labeling hazardous substances; prescribe management of hazardous substances; establish permit requirements for hazardous substances treatment, storage, disposal and transportation; and identify hazardous substances that cannot be deposited in landfills.

Under both RCRA and the HWCL, the generator of a hazardous substance must complete a manifest that accompanies the waste from the point of generation to the ultimate treatment, storage, or disposal location. The manifest describes the waste, its intended destination, and other regulatory information about the waste. Copies must be filed with the DTSC. Generators must also match copies of waste manifests with receipts from the treatment, storage, or disposal facility to which it sends waste.

Hazardous Substances Worker Safety Requirements

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations within the State. Cal/OSHA standards are more stringent than federal regulations. Cal/OSHA regulations concerning the use of hazardous substances include requirements for safety training, availability of safety equipment, hazardous substances exposure warnings, and emergency action and fire prevention.

Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous substances, describing the hazards of chemicals, and documenting employee-training programs.

Both federal and state laws include special provisions for hazard communication to employees who work with and/or encounter hazardous materials and wastes. The training must include safe methods for handling hazardous substances, an explanation of MSDS, use of emergency response equipment, implementation of an emergency response plan, and use of personal protective equipment.

Groundwater Regulatory Background

Acting through the RWQCB, the SWRCB regulates surface and groundwater quality pursuant to the Porter-Cologne Water Quality Act, the federal Clean Water Act, and Underground Tank Regulations. Under these laws, RWQCB is authorized to supervise the cleanup of hazardous wastes sites when two conditions are met: (1) the potential for water pollution exists and (2) RWQCB assistance is requested by local agencies.

Depending on the nature of contamination, the lead agency responsible for the regulation of hazardous materials at the site can be the DTSC, RWQCB, or both. DTSC evaluates contaminated sites to ascertain risks to human health and the environment. Sites can be ranked by DTSC or referred for evaluation by the RWQCB. Cal/EPA (DTSC) and Cal/OSHA are responsible for ensuring that appropriate measures are taken to protect workers from exposure to potential groundwater contaminants.

Hazardous Materials Transport

California law requires that Hazardous Waste (as defined above) be transported by a California registered hazardous waste transporter that meets specific registration requirements. The requirements include: possession of a valid Hazardous Waste Transporter Registration, proof of public liability insurance, which includes coverage for environmental restoration, and compliance with California Vehicle Code registration regulations required for vehicle and driver licensing.

State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads.

Aboveground Storage of Petroleum (California Health and Safety Code, Chapter 6.67)

This state law regulates construction, installation, operation, and monitoring of aboveground petroleum storage tanks. This law is designed to prevent release of hazardous materials into the environment by either leakage from tanks and associated pipelines or from overfilling and spillage. As such, the program works to reduce the occurrence of hazardous material releases.

Regulations Pertaining to Safety at Marine Terminals and Vessels

Lempert-Keene-Seastrand Oil Spill Prevention and Response Act, (Oil Spill Prevention and Response Act [OSPRA], 8670 Gov. Code Chapter 7.4)

This Act requires preparation of a State oil spill contingency plan to protect marine waters. It also empowers a deputy director of the CDFG to take steps to prevent, remove, abate, respond, contain, and clean up oil spills. Notification is required to the Governor’s Office of Emergency Services, which in turn notifies the response agencies, of all oil spills in the marine environment, regardless of size. Oil Spill Contingency Plans must be prepared and implemented. The Act creates the Oil Spill Prevention and Administration Fund and the Oil Spill Response Trust Fund.

Fees into the first fund are paid by marine terminal operators on each barrel of oil delivered through the marine terminal and by pipeline operators for pipelines transporting oil into the state across, under, or through marine waters. Fees into the second fund are paid by operators of marine terminals, pipelines, and refineries. The Lempert-Keene Act also directs authority to the California State Lands Commission (CSLC) for oil spill prevention from and inspection of marine facilities (Public Resources Code, §§PRC 8750, et seq).

California Pipeline Safety Act of 1981

This Act gives regulatory jurisdiction to the California State Fire Marshal (CSFM) for the safety of all intrastate hazardous liquid pipelines and all interstate pipelines used for the transportation of hazardous or highly volatile liquid substances. The law establishes the governing rules for interstate pipelines to be the Federal Hazardous Liquid Pipeline Safety Act and Federal pipeline safety regulations.

California Government Code sections 51010 through 51018 provide specific pipeline safety requirements that are more stringent than the Federal rules. These include:

- Periodic hydrostatic testing of pipelines, with specific accuracy requirements on leak rate determination;
- Hydrostatic testing by State-certified independent pipeline testing firms;
- Pipeline leak detection; and
- Requirement that all leaks be reported.

The Code requires that pipelines include leak prevention and cathodic protection, with acceptability to be determined by the CSFM. All new pipelines must be designed to accommodate the passage of instrumented inspection devices, i.e., smart pigs.

Responsibilities for implementing and enforcing the state regulations addressing terminals, vessels, and pollution control fall to a number of agencies, as described in the following sections.

California State Lands Commission

Chapter 1248 of the Statutes of 1990 (SB 2040), the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act, established a comprehensive approach to prevention of and response to oil spills. The CSLC Marine Facilities Division is responsible for governing marine terminals. Through CCR §§ 2300 through 2571, the Marine Facilities Division established a comprehensive program to minimize and prevent spills from occurring at marine terminals, and to minimize spill impact should one occur. These regulations established a comprehensive inspection-monitoring plan whereby CSLC inspectors monitor transfer operations on a continuing basis. The standards generated by the proposed MOTEMS provide specific requirements for subsequent audits and engineering inspections.

CSLC's marine terminal regulations are similar to, but more comprehensive than federal regulations in terms of establishing an exchange of information between the terminal and vessels, information that must be contained in the Declaration of Inspection, requirements for transfer operations, and information that must be contained in the Operations Manual. All marine

terminals are required to submit updated Operations Manuals to CSLC for review and approval. CSLC regulations also require that prior to the commencement of oil transfer, a boom shall be deployed to contain any oil that might be released.

A requirement that each marine oil terminal operator must implement a marine oil terminal security program is contained in Section 2430 of CCR Title 2, Division 3, Chapter 1, Article 5.1. At a minimum, each security program must:

- Provide for the safety and security of persons, property, and equipment on the terminal and along the dockside of vessels moored at the terminal;
- Prevent and deter the carrying of any weapon, incendiary, or explosive on or about any person inside the terminal, including within his or her personal articles;
- Prevent and deter the introduction of any weapon, incendiary, or explosive in stores or carried by persons onto the terminal or to the dockside of vessels moored at the terminal; and
- Prevent or deter unauthorized access to the terminal and to the dockside of vessels moored at the terminal.

The Marine Facilities Division has also issued regulations on the following:

- Marine Terminal Personnel Training and Certification;
- Structural Requirements for Vapor Control Systems at Marine Terminals; and
- Marine Oil Terminal Pipelines.

California Department of Fish and Game

The Office of Oil Spill Prevention and Response (OSPR) was created within the California Department of Fish and Game (CFG) to adopt and implement regulations and guidelines for spill prevention, response planning, and response capability. Final regulations regarding oil spill contingency plans for vessels and marine facilities were issued in November 1993, and last updated in January 2008. These regulations are similar to, but more comprehensive than the federal regulations. The regulations require that all tank vessels, barges, and marine facilities develop and submit their comprehensive oil spill response plans to OSPR for review and approval.

OSPR's regulations require that marine facilities and vessels be able to demonstrate that they have the necessary response capability on hand or under contract to respond to specified spill sizes, including a worst-case spill. The regulations also require that a risk and hazard analysis be conducted on each facility. This analysis must be conducted in accordance with procedures identified by the American Institute of Chemical Engineers (AIChE).

SB 2040 established financial responsibility requirements and required that Applications for Certificate of Financial Responsibility be submitted to OSPR. California's requirement for financial responsibility is in excess of the federal requirements.

SB 2040 also requires the OSPR to develop a State Oil Spill Contingency Plan. In addition, each major harbor was directed to develop a Harbor Safety Plan addressing navigational safety, including tug escort for tankers.

Local Regulations

The Unified Hazardous Waste and Hazardous Management Regulatory Program (SB 1082, 1993) is a state and local effort to consolidate, coordinate, and make consistent existing programs regulating hazardous waste and hazardous materials management. Cal/EPA adopted implementing regulations for the Unified Program (CCR, Title 27, Division 1, Subdivision 4, Chapter 1) in January 1996. The Unified Program is implemented at the local level by Certified Unified Program Agencies (CUPAs).

The SJCEHD is the Certified Unified Program Agency (CUPA) for cities and unincorporated areas within San Joaquin County (County). SJCEHD regulates the use, storage and disposal of hazardous materials by issuing permits, inspecting facilities, and investigating complaints. SJCEHD issues permits for installation and removal of aboveground and underground storage tanks. SJCEHD inspects businesses for compliance with the Hazardous Waste Control Act which places limitations on hazardous waste: storage duration, disposal, and labeling. SJCEHD also requires businesses that handle hazardous materials and hazardous wastes to submit an annual inventory of hazardous materials and hazardous wastes as well as an emergency response to incidents involving those hazardous materials and wastes.

City of Stockton 2035 General Plan

The City of Stockton 2035 General Plan contains goals and policies for hazardous materials, including the following specific goals and policies that are applicable to the proposed Targa project:

HS-5 (Hazardous Materials general goal): To minimize the risk to City of Stockton (City) residents and property associated with the transport, distribution, use, and storage of hazardous materials.

HS-5.2 Hazardous Materials: The City shall require that hazardous materials are used, stored, transported, and disposed of within the City in a safe manner and in compliance with local, State, and Federal safety standards.

HS-5.5 Hazardous Materials Inventory: The City shall require, as appropriate and as a component of the environmental review process, a hazardous materials inventory for project sites, including an assessment of materials and operations for any development applications. Particular attention should be paid to land that previously contained agricultural uses.

Stockton Municipal Code (Title 15 Buildings and Construction, Chapter 15.12 Fire Code, 15.12.010 through 15.12.110)

These portions of the Stockton Municipal Code regulate the construction of buildings and other structures used to store flammable hazardous materials, and the storage of these same materials. These sections ensure that the business is equipped properly and operates in a safe manner and in accordance with all applicable laws and regulations. Permits are issued by the Stockton Fire Department (SFD). The Code also requires maintaining emergency response plans including evacuation plans, approved by the SFD.

7.8.1.3 Required Permits and Approvals

The U.S. Coast Guard will require Targa to prepare an OPA 90-Oil Spill Response Plan.

The U.S. EPA will require Targa to prepare and submit an SPCC Plans.

The CSLC will require Targa to prepare an Operations Manual for the oil terminal improvements at Berth #9.

Prior to operation of the Targa Stockton Terminal, Targa will be required to provide a Certificate of Financial Responsibility CDFG-OSPR.

7.8.2 Methodology

Surrounding potential hazards, hazardous materials, and public health impacts associated with the proposed Targa pProject were evaluated through the review of historical records and government agency-maintained databases and records of known hazards at the Port, hazardous materials contamination, generation, and/or storage as part of the Environmental Database Report. Environmental Site Assessments (ASTM 1527-E Phase I Site Assessments) were performed on the property in 2006 and again in 2011, neither of which revealed existing hazardous conditions on the property.

Four steps have been undertaken to assess the safety impacts and the hazards associated with the proposed Targa project: (1) develop a range of potential upset scenarios associated with the proposed Targa project; (2) estimate the likelihood of the upset scenarios occurring; (3) estimate the consequences of the scenarios, should they occur; and (4) determine the significance of risk based on the probability of occurrence and the severity of consequences.

The risk-of-upset analysis evaluates outcomes of potential upset scenarios, which are the culmination of several events that result in a hazard to the public and/or environment. Some upset scenarios could lead to a significant impact to public safety (e.g., an overpressure in a storage tank results in tank rupture, an oil leak, and subsequent fire that reaches a residence and results in an injury). Other upset scenarios do not create a significant impact to safety but create a significant impact to the environment (e.g., an overpressure in a storage tank results in tank rupture, oil leak, and damage to an endangered species habitat). Parts of a given scenario have different likelihoods or probabilities. Probabilities and consequences of various project-related upset events and scenarios are assessed in this section.

The impact analysis quantifies the probability of an accident scenario due to the proposed Targa project from both the tank vessel traffic at Berth #9 and the oil storage facilities (i.e., the Berth #9, tank farms, and pipelines). Various outcomes or results of upset scenarios are also assessed (e.g., spill volumes from a leak and fate of the oil after a spill). Oil spill volumes are assessed from the proposed Targa project's physical and operational data. Expected probabilities (frequencies) of equipment failure and upset scenarios are evaluated using available statistical databases on the frequency of equipment and component failure.

7.8.3 Environmental Setting

7.8.3.1 Hazardous Materials

The Stockton Port District is an area of approximately 2,000 acres of existing industrial uses related to shipping and receiving of goods and commodities which include hazardous materials. Numerous facilities that handle, store, or transport hazardous material are located within the Port. The Port handles both hazardous material containers and regulated non-cargo hazardous materials. Regulated, non-cargo hazardous materials in the Port may include maritime-use compounds such as chlorinated solvents, petroleum products, compressed gases, paints, cleaners, fertilizers, and pesticides. Numerous federal, state, and local agencies regulate the storage, use, transport, generation, or handling of these materials. The transfer, handling, storage, and transport of hazardous liquid bulk cargoes within the Port is planned for by port, regional and community plans, and is also under the review of a number of agencies and regulations, including the USCG, SFD, SJCEHD- CUPA, and state and federal departments of transportation (49 CFR 2 Part 176). Hazardous materials classifications that may be transported at the Port include:

- Corrosive materials — solids, liquids, or gases that can damage living material or cause fire.
- Flammable liquids – liquids which may catch fire easily. Specifically a flammable liquid is a liquid which has a flash point below 100°F. Flash point is defined as the lowest temperature at which the liquid can form an ignitable mixture in air.
- Combustible liquids – liquids which have flash points between 100°F and 200°F. In general, combustible liquids must be heated to form an ignitable mixture in air.
- Flammable gas – any material that has a boiling point of 20°C (68°F) or less at 101.3 kilopascals (kPa), which is ignitable when in a mixture of 13 percent or less by volume with air, or has a flammable range with air of at least 12 percent regardless of the lower limit.
- Explosive materials — any compound classified by the NFPA as A, B, or C explosives.
- Oxidizing materials — any element or compound that yields oxygen or reacts when subjected to water, heat, or fire conditions.
- Toxic materials — gases, liquids, or solids that may create a hazard to life or health by ingestion, inhalation, or absorption through the skin.
- Unstable materials — those materials that react from heat, shock, friction, contamination, etc., and that are capable of violent decomposition or autoreaction, but which are not designed primarily as an explosive.
- Radioactive materials — those materials that undergo spontaneous emission of radiation from decaying atomic nuclei.

- Water-reactive materials — those materials that react violently or dangerously upon exposure to water or moisture.

The Port has several sites which have recorded releases of hazardous materials as reported by EDR in the EDR Radius Map, Report with GeoCheck, July 19, 2011. The U.S. EPA has reported 42 sites with reported releases of oil and hazardous substances. Spills of petroleum products at Nustar Terminal and Shell Terminal are still open remediation sites.

7.8.3.2 2006 Phase I Site Assessment

The 2006 Phase I Site Assessment encompassed the entire Pacific Ethanol Production and Transshipment Facility (Pacific Ethanol Project), which was approximately 99 acres — 19 acres of which is currently being evaluated as part of the proposed Targa project. The 2006 Phase I Site Assessment characterized the site as fill and dredge samples from the nearby San Joaquin River. Soil samples taken in 2006 demonstrated that "metal concentrations in the dredge sediments are below the screening levels established in the California Human Health Screening Levels" and that "the findings…do not pose a 'significant threat' to groundwater." Additionally, no Recognized Environmental Conditions (REC) or other contamination was found on the property in 2006.

7.8.3.3 2011 Phase I Site Assessment

No REC or other contamination was found in the course of the 2011 Phase I Site Assessment. Additionally, no infrastructure (other than an above grade sewer grate) was found. Although no sampling of the site was completed, there were no visible environmental conditions on the property. Plant life was limited, although visible throughout the property. Likewise, no environmental conditions were found throughout the public ROW to be used for the proposed pipeline or at Berth #9 area. Additionally, no vegetation was noted at Berth #9 as the entire areas is of impervious surface. Vegetation in the public ROW was limited, although visible in various locations throughout, but would not be adequate to pose an issue to construction in the public ROW.

7.8.3.4 2011 Environmental Database Report

Table 7.8-1 includes the findings from the 2011 Environmental Database Report (EDR), including known hazardous sites within the region.

Table 7.8-1: 2011 Environmental Database Report Findings

Agency Database	Survey Distance (miles from subject site)	Number of Sites Identified
Federal Records		
U.S. EPA Comprehensive Environmental Response, Compensation, and Liability Information System - No Further Remediation Action Planned List (CERCLIS-NFRAP)	1.25	2
U.S. EPA Resource Conservation and Recovery Act (RCRA) Corrective Action (CORRACTS) List	1.25	0
U.S. EPA RCRA Registered Large and Small Generators of HazardousWaste (RCRA-LQG) and (RCRA-SQG)	0.5	10
U.S. EPA RCRA Permitted Treatment, Storage, and Disposal (TSD) Facilities	0.75	0
U.S. EPA Emergency Response Notification System (ERNS) List	0.25	42
U.S. EPA Chemical Hazardous Materials Incident Report System (CHMIRS) and Hazardous Materials Incident Report System (HMIRS)	0.25	14
U.S. EPA National Priority List (NPL) for Superfund Sites	1.25	0
U.S. EPA Toxic Chemical Release Inventory System (TRIS)	0.25	0
State and Tribal Records		
State and Tribal NPL equivalent	0.25	42
State and Tribal CERCLIS equivalent (EnviroStor)	1.25	11
State Permitted Solid Waste Landfill, Incinerators or Transfer Stations (SWF/LF)	0.75	1
State and Tribal Leaky Underground Storage Tank (LUST)	0.75	30
State and Tribal Registered Storage Tanks	0.5	18
State and Tribal Voluntary Clean-ups	0.75	1
Local Lists of Landfill / Solid Waste Disposal Sites	0.75	1
Local Lists of Hazardous waste / Contaminated Sites	1.25	4

7.8.3.5 Liquid Bulk Cargoes & Port Operations and Pipelines

Port operations (e.g., navigation of large vessels in the deep water shipping channel, operation of heavy machinery and cranes, machinery fueling and fuel storage, handling and storage of various potentially hazardous loads, etc.) involve a variety of risks that may result in an accident. Risks associated with the proposed operation of a marine terminal would include marine vessel accidents leading to tanker damage, and subsequent oil spills into the environment. Risks associated with the proposed crude oil and petroleum product transfers, storage, and pipeline transport would include those associated with transfer equipment damage, pipeline damage, and oil storage or pumping equipment damage or failure. These risks could lead to subsequent oil or fuel spills into or near water, fires, and hazardous combustion byproducts releases.

Petroleum products that would be delivered to the proposed Targa Stockton Terminal through Berth #9 mainly include stabilized crude oil and heavier, partially-refined petroleum products, which contain relatively minor proportions of light-end, flammable petroleum hydrocarbons. Targa is proposing at this time one crude oil stream, Bakken, as part of the proposed Targa project, which originates in North Dakota and is considered a light crude.

The Port also contains facilities that handle other types of non-petroleum product hazardous materials. The Port maintains a Risk Management Plan (RMP) that outlines the locations of various hazards throughout the Port and addresses response capabilities and emergency procedures. The RMP contains policies designed to minimize the impacts of accidents associated with the release of hazardous materials. The Release Response Plan prepared in accordance with the Hazardous Material Release Response Plans and Inventory Law (California Health and Safety Code, Chapter 6.95), which is administered by the SFD, also regulates hazardous material activities within the Port. These activities are conducted under the review of a number of agencies and regulations, including the RMP, USCG, fire department, and state and federal departments of transportation (49 Code of Federal Regulations [CFR] Part 176).

7.8.3.6 History of Oil Spills

The CSLC has been tracking oil spills from California marine terminals since 1992. A total of 128 spills, varying in size from a few teaspoons to 1,092 gallons (26 bbls), occurred during the 10 years reported from 1992 through 2001. This equates to approximately 13 spills per year.

Terminals were the responsible party for approximately 57 percent of the spills, while vessels were responsible for the remaining 43 percent. An updated CSLC (2010) evaluation of marine terminal oil spill shows that the rate of oil spills at California marine terminals is declining. On average, oil spill incidences in state waters from oil and gas drilling operations, and transport of oil, occur at a frequency of less than 12 per year, and account for less than half a barrel (+/- 21 gallons) in total volume. Except for one 5-barrel spill that occurred in the Long Beach Harbor in 2008, spills that do occur are generally measured in drops or ounces.

The Research and Innovative Technical Administration maintains a database for all pollution incidents into U.S. Waters. An analysis of the database indicates that the percentage of the volume of oil spilled per vessel type varies greatly from year to year. In all but a very few years, the largest percentage of the oil spilled (by volume) during a given year came from tankers. The International Tanker Owners Pollution Federation Ltd. (ITOPF) has been maintaining a database of statistics on all tanker oil spills (except due to acts of war) occurring throughout the world since 1970. The data shows that the number of spills per year has steadily declined since the 1970s with an average number of spills per year at 79 with 3,142,000 tons of oil spilled to 21 in 2010 with less than 15,000 tons of oil spilled, showing the effectiveness of international efforts to reduce oil spills.

7.8.3.7 Risk from Oil Facilities in the Port

The Port currently contains many facilities that store and move oil and petroleum products (Shell, Buckeye, Nustar, Tesoro). Development and use of these petroleum storage and terminalling facilities have been ongoing in the area for nearly a century. As a result, there is a variety of oil terminalling and storage facilities are scattered throughout the port area (*See Figure* 3.4-3) and connected by various pipelines. The presence and operation of these facilities, especially those close to other Port operations, currently present some level of baseline risk to the public and environment. However, these risks are not quantified under the scope of this document unless there is an overlap in risk with the proposed Targa project.

Although oil facilities and pipelines in the Port are engineered safely and undergo extensive environmental review prior to their approval and construction, and rigorous safety testing prior to their operation, the nature of the materials handled by these facilities and pipelines nonetheless pose risks to people, the environment, and property in the vicinity. Upsets are possible even under normal operating conditions for oil pipelines and oil facilities, and they therefore pose an ever-present risk of exposing the surrounding population to accidental releases of materials. These potential releases can subsequently lead to biological and/or hydrological damage, fires, and/or releases of petroleum fire hazardous combustion byproducts.

The Port also contains facilities that handle other types of non-petroleum product hazardous materials. The Port maintains a RMP as discussed above (Please refer to *Section* 7.7.3.5).

Currently, ethanol and petroleum product movement by railcar and Kinder Morgan petroleum product pipeline dominate the petroleum product and ethanol movement through the Port and the Sacramento-San Joaquin River Delta (Delta). Recent data on ethanol and petroleum product throughput for the Port indicate some interannual variability, but a general increasing trend in ethanol and petroleum product deliveries. A number of factors, such as refinery and pipeline availability, commodity prices and availability, cause these variations. Total Port petroleum product throughput would increase with the proposed Targa project operations, which would introduce an estimated additional 11.54 million barrels per year to the Port by 2013.

7.8.3.8 Oil Spill Response

The responsibility for onshore and offshore spill containment and cleanup lies with the owner/operator of the facility or vessel involved in the spill (40 CFR, Part 112). All Port marine terminals and all vessels calling at the marine terminals are required to have oil spill response plans and a certain level of initial response capability. As it is not economically feasible or practical for terminal operators and vessels to each have their own equipment to respond to more than minor spills, operators rely on pooled or contract capabilities. Most spills at the Port are small and handled by local commercial contractors. Most major oil companies are members of Marine Spill Response Corporation (MSRC), an oil spill cooperative established to respond to marine spills, including the Port area and Delta.

The vessel and terminal owners use various companies and organizations to provide their response capability. The USCG has created the Oil Spill Removal Organizations (OSRO) classification program so that facility and tank vessel operators can contract with and list OSRO in their response plans in lieu of providing extensive lists of response resources to show that the listed organization can meet the response requirements. Organizations looking to receive a USCG OSRO classification submit an extensive list of their resources and capabilities to the USCG for evaluation. The State of California has a similar OSRO classification program to allow facility and tank vessel operators to list OSROs in meeting State oil spill response requirements.

Organizations that provide oil spill removal in the Port area include: Advanced Cleanup Technology; ANCON Marine, Inc.; NRC Environmental Services Inc; and MSRC.

Targa is a member of the Marine Preservation Association (MPA) and the MSRC in an effort to improve safety and environmental protections and complying with OPA-90. Targa's membership in MSRC provides Targa facilities with high quality dedicated spill response capability. MSRC is an independent, non-profit, national spill response company dedicated to rapid response. The MSRC has the largest, dedicated, standby oil spill response program in the U.S., including open water, shoreline, and mid-continent river operations. MSRC's capabilities include a large inventory of vessels, equipment, and trained personnel, complemented by a large contractor workforce in numerous locations in California. MSRC response services are available to all MPA members, companies that have contracted with MSRC, and on a reimbursable basis. MSRC responds to oil spills of any size, shoreline cleanup and, as appropriate, hazardous material spill response and response to spills outside the U.S. MSRC can provide additional response capabilities through a network of contractors that make up MSRC's Spill Team Area Responders (STARs).

7.8.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered hazards or hazardous materials as having a significant impact if the project would:

- Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.

- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

7.8.5 Impacts and Mitigation Measures

Environmental impacts from hazards and hazardous materials caused by the project are discussed in Section 3.7 (Hazards and Hazardous Materials) of the 2006 Pacific Ethanol EIR. Significant impacts from hazards or hazardous materials existing in the Port area were also identified in the 2006 Pacific Ethanol EIR. The proposed Targa project is within the same scope of hazardous materials and public safety analysis presented in the 2006 Pacific Ethanol EIR and there are no changes in circumstances since the preparation of these documents that require reanalysis of cumulative impacts. Site hazards and mitigation measures are presented below.

7.8.5.1 2006 Pacific Ethanol EIR Impacts

Significant impacts identified in the 2006 Pacific Ethanol EIR's Section 3.7 that are relevant to the proposed Targa project are presented below.

Impact #3.7.1 - Operational Hazards

Operational hazardous material handling on site includes the transport of materials to and from the ethanol production and transshipment facilities and the utilization of such materials in the production facility. Hazardous materials contained and utilized at Pacific Ethanol includes: Ethanol, Diesel Fuel, Aqueous Ammonia, Enzymes, Sulfuric Acid, Urea, and Gasoline.

Impact #3.7.2 - Site Hazards.
The Phase I Environmental Site Assessment did not identify the presence of RECs.

7.8.5.2 2006 Pacific Ethanol EIR Mitigation Measures

The 2006 Pacific Ethanol EIR provided two mitigation measures to mitigate the operational and site hazards which would be applicable to the proposed Targa project. These mitigation measures are identified below:

Mitigation Measure #3.7.1.1. Before construction begins, Pacific Ethanol would submit a Hazardous Materials Business Plan to the Stockton Port District, prepared in accordance with the requirements of the California Business Plan Act. In the business plan, Pacific Ethanol would address health and safety issues pertaining to the fuel storage tanks. The business plan would also identify emergency procedures and an evacuation plan.

Pacific Ethanol would implement the business plan at or before the start of construction. As part of implementation, Pacific Ethanol would ensure that plant employees are familiar with the plan and have ready access to safety equipment and MSDS. These sheets would describe the materials, storage and handling procedures, and emergency (spill or fire) procedures for onsite hazardous materials. Pacific Ethanol would implement a safety training program for employees working in the project area.

Pacific Ethanol would be inspected by Stockton Office of Emergency Services to determine compliance with the business plan. Site inspections typically include discussions with the plant manager and employees to determine the level of familiarity with the business plan. Facilities would also be inspected to ensure the presence of proper safety equipment. Evidence of safety training would be required.

Mitigation Measure #3.7.1.2. Pacific Ethanol would restrict all vehicle and equipment maintenance to a designated area with an impermeable surface. The surface would be designed to block soil and groundwater contamination caused by spills of materials commonly used in equipment maintenance, such as oils, fuels, solvents, and paint.

7.8.5.3 Targa Stockton Terminal Project-specific Impacts

Similar to the 2006 Pacific Ethanol EIR, there would be no impacts related to airports, airstrips, fire dangers related to wildlands or residential housing, or emergency plans. With construction of the proposed Targa project, these impacts (or lack thereof) would remain the same as no airport/air strip would be located within the 2 mile radius discussed in the 2006 Pacific Ethanol EIR and no wildlands or residences would be constructed in the nearby vicinity.

The following analysis reviews the risk of upset and hazards associated with the proposed Targa Stockton Terminal which were not evaluated in the 2006 Pacific Ethanol EIR, or for which are unique to the proposed Targa project.

Risk of Upset Due to Terrorism

The Port has the potential of being a target for terrorist actions, and has taken precautions, with security improvements and personnel. There are no data available to indicate how likely a terrorist attack aimed at the Port or the proposed Targa project would be, and therefore the probability of an attack cannot be predicted accurately. Terrorism can be viewed as a potential trigger that could initiate events described in this section such as tanker breach, pipeline rupture, tank rupture, or crude oil or refined petroleum product fire. The potential impact of those events, once triggered by whatever means, would remain. Targa would be required to develop a Terminal Security Plan (TSP) for terminal and pipeline which would be approved by the USCG and CLSC (Title 33 CFR Part 105). With the development and implementation of a TSP, Targa would avoid any potentially foreseeable impacts, therefore, it is anticipated that the risk of upset due to terrorism is less than significant with mitigation (implementation of the TSP).

Risk of Upset Due to Berth #9 Loading/Unloading Operations

Tanker or barge disconnection during transfer and pump seal failure, and subsequent oil spill is a possibility associated with the proposed Targa project. An operator error, severe weather event, collision of a passing vessel into the moored tanker/barge, or equipment malfunction could lead to a disconnection of the transfer hoses/arms between the tanker/barge and the terminal. The CSLC, which has been tracking oil spills from California marine terminals since 1992, has indicated that existing regulations and safety practices associated with oil transfers at marine terminals in the state have been and are continuing to decline. Given changes in petroleum product handling procedures and vapor collection systems, risk of upset is very unlikely and potential impacts are less than significant.

Risk of Upset Due to Petroleum Product Pipeline from Berth #9 to Tank Farm Operations

***Pipeline Ruptures*.** The proposed petroleum product pipeline has the potential to involve a rupture (spill greater than 100 bbl). Ruptures have significantly lower frequency rates and higher volumes of spills than leaks. Likely causes of ruptures involve earthquakes, corrosion, and third-party damage. A full rupture scenario assumes a total rupture of a pipeline, resulting in drainage of the pipeline content between the two closest valves.

In the event of a pipeline rupture, Targa's leak detection system (Supervisory Control and Data Acquisition System [SCADA]) would be capable of detecting a rupture within two minutes for the offloading system and 5 minutes of occurrence for the delivery system, isolating the ruptured segment by closing motor operated valves, and shutting down the pumps (a description of the proposed SCADA system is provided in Appendix C). These detection times are consistent with estimated SCADA leak detection time based on studies presented by the National Transportation Safety Board (NTSB) (2005) and Zhang et al (2000) that showed leak detection times ranging

from 2 to 5 minutes for all leaks larger than 2 percent of the pipeline flow rate. Once the pipeline is shutdown, the oil would continue to spill until the oil was drained from the affected line.

If Targa's SCADA system is not fully operational or is overridden by an operator, it is assumed that the pumping would continue for 30 minutes before a rupture would be detected based on the proposed pipeline monitoring and line balancing procedures. This would be consistent with the observed spill duration of the 1997 Platform Irene oil spill where operators overrode the SCADA system and restarted the pipeline until line balancing determined that there was a pipeline integrity failure (i.e., the correct amount of oil was not arriving at the final destination). How an operator responds to SCADA system alarms and automatic shutdowns also has an impact on the size of the oil spill. Given the relatively short lengths of the proposed pipeline between Berth #9 and the tank farm and easy ability to rapidly inspect the pipeline rights-of-way located in existing Port roads, it is highly unlikely that the SCADA system would be overridden by the operator.

The frequency of a release (leak or rupture) is primarily a function of the construction of the pipeline, the maintenance and operational practices, as well as third party damage. The volume of the subsequent release is a function of the training of the operators as well as the design, construction, and maintenance of the leak detection system. The operators' actions are accounted for in the pipeline failure frequency analysis by assigning a high probability of operator error, particularly related to the operation of the SCADA system. As such, the proper utilization of the SCADA system would limit several foreseeable impacts, and therefore, would leave impacts due to pipeline ruptures less than significant with mitigation.

Pipeline Leaks. Pipeline leaks (spills less than 100 bbl) are similar to ruptures described above, except that they address smaller-sized releases from the pipeline. This distinction has been made between leaks and ruptures to account for the different failure frequencies that exist between ruptures and leaks. Pipeline leaks are most commonly a result of corrosion, erosion, or third party damage to the pipeline. Targa's pipeline leak detection system would use a volume based monitoring system, as well as pressure monitoring. Because pressure would not change significantly due to a smaller leak, small leaks are difficult to detect using a SCADA system and volume monitoring is generally used to assist in the detection of small leaks. Typically, a small corrosion-induced leak would have a leak rate of 1 to 2 barrels per hour. In the event that a potential leak is detected, the pipeline would be shut down until it could be fully inspected. Typically, pipeline leaks have much smaller spill volumes than pipeline ruptures (CSFM 1993), thus evading rapid detection.

Pipeline Leak Detection System. A leak detection system would be installed for all pipeline systems associated with the proposed Targa project. The system would automatically alert the operator if a leak occurs so that appropriate actions can be taken to minimize the spill volume and duration. The system would be designed to protect the public and the environment from the consequences of a pipeline failure and uncontrolled spill by greatly minimizing the frequency of a pipeline failure and spill.

The overall Leak Detection Systems would be designed in accordance with API Standard 1130, "Computational Pipeline Monitoring", with performance in accordance with API Standard 1149,

"Pipeline Variable Uncertainties and Their Effects on Leak Detectability". Specifically, the project would utilize a Real Time Transient Model (RTTM) system to monitor the pipelines, as defined in API 1130. This method employs numerous monitored variables and a sophisticated computer model to identify upsets or potential leaks. The reason for monitoring different variables is to increase the likelihood of prompt leak detection. The input to the computer would include operating parameters for temperature, pressure, flow, viscosity and density, and include equipment input such as pump start/stop and valve open/close signals. The output from all of the sensors would be compared against a baseline model. Values that differ from the modeled case would indicate a potential leak. The control center operators, who are responsible for monitoring the system at all times, would respond to all potential leak conditions by verifying the condition and taking appropriate action as identified in Targa pipeline operations manual or following pipeline safety guidelines, which would be kept at the facility.

In addition to the RTTM system, two additional monitoring and analysis methodologies would be employed to verify pipeline integrity: Volumetric Balancing (modeling for fluctuations in line pack, as well as the basic volumetric balance calculations) and Pressure/Flow Monitoring (monitors for rapid changes in the pressure and/or flow rate).

As noted earlier, the proposed pipeline system would be monitored and controlled by Targa operators at the Targa Stockton Terminal Control Building. Targa anticipates using commercially available pipeline software to perform the leak detection functions. The system would reside in the Control Building on a dedicated processor (with dedicated screen) and collect data from the SCADA system. The data polling cycle (request and time combined) to all field locations is estimated to be 1-5 seconds or less.

The expected performance of the leak detection system, as defined by the API standards referenced above, as the leak detection time vs. the leak flow rate as a percent of the design pipeline flow rate. The proposed system would be able to detect a potential leak as small as 0.71 percent of the design flow in 5 minutes or less. At the design flow rate for the vessel unloading pipeline system (Berth #9 to Tank Farm) of 10,000 barrels per hour, this relates to a flow rate of 1.8 barrels per minute. Leaks of less than 100 barrels per hour would be detected through line balancing, with an approximate detection time of 10 to 12 hours.

When the pipeline system is in a shutdown condition, the leak detection system would continue to monitor for leaks by tracking the pressure and temperature of the system. Any unexpected changes would trigger alarms and alert the pipeline operators of the potential problem. The systems' ability to detect a leak during this period would increase dramatically as a result of the flow rate variable being removed from the system modeling.

If a leak is detected, the system would be designed to quickly isolate the leak and minimize the amount of a release. In addition to continuous monitoring, the SCADA system will provide the pipeline controllers with the ability to remotely control important aspects of systems operation, including starting and stopping pumps, opening and closing valves, switching into and out of storage tanks and facility emergency shutdowns. The SCADA system will be programmed to alert the pipeline system controllers any time that operational conditions fall outside established

parameters. Upon detection of an irregularity, the pipeline system controllers will have the capability to shut down the affected terminal equipment or pipeline by remotely stopping pumps and closing block valves that will be part of the various systems. Additionally, Emergency Shutdown (ESD) buttons will be installed at key locations around the facilities, allowing system operators to safely halt operations in case of an emergency.

To assure optimal operations at all times, the proposed SCADA system would have multiple levels of redundancy to provide robust real-time operation, including redundant backup servers for critical applications. The system proposed would use a high-speed fiber optic communications systems and T1 communications circuits to transmit and collect data as rapidly as possible. The proposed communication infrastructure would support polling of remote devices such as pumps, meters, valves, tanks, pressure and temperature instruments numerous times each minute.

Electronic leak detection and continuous, reliable monitoring systems are only two components of an overall pipeline mechanical integrity program. Other components include: proper construction methods; pipeline coatings; cathodic protection systems; pipeline patrols; internal pipeline inspections (smart pigs); and external inspection of above grade pipe. Since these lines are relatively short and located in high traffic areas, any potential issues will be quickly detected. Warning signs would be posted along the ROW, alerting people as to the presence of the lines. A contact phone number will also be provided.

Risk of Upset Due to Crude Oil/Petroleum Product Fire

With any spill of crude oil or refined petroleum product, the potential exists for a fire associated with the spill. If the spill were to catch fire, there could be a subsequent threat to public safety through thermal radiation effects and exposure to toxic combustion byproducts. Given the properties of the crude oil and partially refined products that would be delivered to the proposed Berth #9 and tank farm, the likelihood of an explosion is highly unlikely, and therefore explosions are not addressed further in this document. Petroleum products that could pose an explosion hazard are characterized by high fractions of volatile components and a low flash point (i.e., the hydrocarbons readily evaporate and form a flammable vapor cloud). The crude oil and petroleum products that have been proposed have limited volatile components, thus minimizing the potential to form a large flammable vapor cloud with a subsequent explosion. The crude oil stream proposed as part of the proposed Targa project, which originates in North Dakota (Bakken Formation Crude), has relatively low flash points, but limited volumes of volatile, light-end components. Therefore, while this crude oil stream does pose a fire hazard, it is very unlikely that a flammable vapor cloud of sufficient size would be formed following a spill that could result in an explosion. In addition, the use of floating roof tanks and BACTs in proposed petroleum storage tanks eliminates the tank vapor space and all but a residual amount of vapors emanating from crude oil and refined petroleum products, which in turn, substantially reduces the potential for a large flammable vapor cloud and subsequent explosion.

Oil/Refined Petroleum Product Spill Hazards

One of the main hazards associated with a crude oil or refined petroleum product spill is the potential for contamination of the surrounding area (and associated biohazards), and in this case, the potential flow to the waters of the San Joaquin River and the various channels of the Delta. It is anticipated that the mitigation measures outlined below will reduce this hazard to a level of risk within tolerance as established by policy of the Stockton Port District and various regulatory agencies. As noted below, these measures will ensure, in the event of a leak at tank farm location, Berth #9, or throughout the pipeline route, that any such leak is quickly discovered and rectified, thereby limiting potential environmental contamination.

Fire Hazards

Crude oil and refined petroleum fire hazards strongly depend on the type or blend of crude oil and petroleum product being shipped through the pipeline, and the conditions at the spill site. Fire hazards associated with light and heavy crude oils are quite different and the same oil type and volume could cause drastically different consequences based on site conditions. Heavy crude oil consists of mainly heavy hydrocarbon components with low flammability that pose some risk associated with the ignition of spilled oil and the resulting fire. While a crude oil fire could theoretically occur at any place where a spill occurs, the occurrence of a heavy crude oil fire is likely to be limited to the pump stations or areas where a significant ignition source can be found.

For fire hazards, the concern is intensity of thermal radiation and its effects on public health and safety. Data on the exposure time necessary to reach pain thresholds (CCPS 1989) indicates that relatively high thermal radiation levels can be tolerated without significant pain or injury. Therefore, there would usually be sufficient time for people to escape the immediate area of the fire before significant physical injury is suffered. Based on the CCPS and the Port RMP, exposure to a thermal radiation intensity of 5 kilowatts per square meter (kW/m2) would result in pain if the exposure period were to exceed 13 seconds, or second degree burns after a 30 second exposure. Exposure to a thermal radiation intensity of 10kW/ m2 would result in pain after 5 seconds and second degree burns after short exposure periods (i.e., 14 seconds). Exposure to 10kW/m2 thermal radiation intensity produces 10 percent fatalities in 60 seconds based on the Eisenberg-Probit Equation. Based on the CCPS data, thermal radiation levels of 5 and 10 kW/m2 were selected to represent minor and moderate-to-heavy physical injury levels. A thermal radiation level of 1.5 kW/m2 was also evaluated since this is a level that would be considered safe by the CCPS and API for all exposed individuals and would likely be the resulting level of exposure in the event of a minor fire that may occur at the proposed lease area or Berth #9.

The thermal radiation hazards from hydrocarbon pool fires depend on the composition of the hydrocarbon mixture, the size and shape of the fire, the duration of the fire, its proximity to the object(s) at risk, and the thermal characteristics of the object exposed to the fire. Estimating the thermal radiation field surrounding the fire involves the following three major steps:

1. Geometric characterization of the pool fire, which involves the determination of the burning rate and the physical dimensions of the fire;

2. Characteristics of the thermal radiation properties of the fire, which involves estimating the average radiation of the flames; and
3. Calculation of radiant intensity at a given location, which depends on the path to the receptor length, flame temperature, and atmospheric relative humidity.

Given the limited potential of a fire, the provided mechanisms to avoid and fight fires, as discussed above, it is unlikely that a large-scale fire, one that creates greater 1.5kW/m2, would occur at the proposed lease area or Berth #9, and therefore, with the addition of the several above discussed mitigation measures, potential for a disastrous fire would be limited, and therefore, less than signification with the incorporation of the mitigation measures.

Public Safety

Sensitive public receptors are those locations such as residences, schools, daycare centers, etc. which might have persons present for extended periods of time, and thus would be potentially affected by a nearby catastrophic event. In the event of an accident in the vicinity of a sensitive receptor, consequences of the accident could be much greater than at other locations. There are no sensitive receptors located near the proposed Targa Stockton Terminal. The nearest sensitive receptor is the George Washington Elementary School which is located 1.5 miles east of the proposed tank farm, 1.1 miles south of Berth #9, and approximately 0.8 miles from the nearest portion of the petroleum product pipeline that connects Berth #9 to the tank farm.

Potential impacts to the public are determined by delineating “hazard footprints” for the type of accidents that can potentially occur. It is then determined if the hazard footprints would reach the sensitive receptors or vulnerable resources identified in the area, as well as the number of injuries and/or fatalities that could occur. Types of hazards evaluated include radiant heat from a fire, flammable gas cloud from a release, and blast overpressure and flying debris from an explosion. Depending on the properties of the released material, crude oil typically does not produce explosions or flammable vapor clouds. Due to the large distance from any component of the proposed Targa project and the closet sensitive receptor, no significant impact is anticipated from the risk of upset.

7.8.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

The following mitigation measures have been incorporated to diminish any potentially significant impacts to a less than significant level:

HM-1 Design facilities with impervious surfaces and curbing for vehicular transportation and maintenance.

HM-2 Provide all employees and the Stockton Port District with a hazardous materials business plan that educates employees on handling and shipping of hazardous materials.

HM-3 Design facilities with secondary containment for all ASTs.

HM-4 Design all ASTs with fixed roofs that would be constructed of stainless steel to limit potential for leakage or spillage.

HM-5 Design all ASTs with under-tank leak detection that would meet the requirements of API 650.

HM-6 Each tank foundation would have a membrane liner, which would be constructed of High Density Polyethylene, thereby ensuring any potential leakage is contained to the maximum extent possible, within the foundation area of the tank.

HM-7 The site has been designed with a buffer/berm area between the site and additional facilities and the San Joaquin River that would limit the potential of off-site environmental contamination.

HM-8: MSDS should be made available to each employee assigned to work with or near asphalt processes. The MSDS should include specific information on the solvents present in the asphalt mix and should list all pertinent information including flashpoint, boiling point, acute and chronic effects of all chemical ingredients in the solution, protective equipment, as well as other fire and emergency cleanup information.

HM-9 All vessels at Berth #9 shall be surrounded by a spill containment boom prior to initiating unloading operations. Following unloading and before releasing the boom, the project tenant shall visually inspect the water surface or the area encircled by the containment boom and recover and dispose any floating materials (e.g., trash) or petroleum sheen.

HM-10 Construct 6-inch curb in areas that could be affected by a spill while loading/off-loading product.

HM-11 The Targa Stockton Terminal shall limit crude oil deliveries to double-hulled vessels. USCG regulations will require double-hulled vessels for all areas within the Exclusive Economic Zone of the U.S. starting in 2015. This measure will bar Targa from accepting deliveries from single-hulled vessels at any time after commencement of the Project.

HM-12 Loading arms shall be equipped with USCG-approved quick-release couplings. A crude oil flow control system shall be interlocked at the coupling that will automatically stop flow prior to disconnection.

HM-13 The proposed Targa Stockton Terminal Project will include fire water pumps improvements at Berth #9. Berth #9 will have new fire hydrants, foam tank, foam monitors, and water monitors to respond and mitigate potential upset. Also, ships and fire boats will be able to interconnect at Berth #9 for firefighting purposes.

HM-14 Employ leak detection (SCADA) for all pipelines to ensure that leaks are discovered, and all flow is shut-off, as quickly as possible.

7.8.6 Hazards and Hazardous Materials Initial Study Responses

Table 7.8-2: Hazardous Waste Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☑	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☑	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school?	☐	☑	☐	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing on working in the project area?	☐	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project	☐	☐	☐	☐	☑

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
area?					
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐	☑
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☐	☑

7.8.7 Responses to Initial Study Questions

7.8.7.1 Significant Hazard to the Public or Environment Through Transport or Use of Hazardous Materials: Less than Significant with Mitigation

Operational hazardous material handling on site would include the loading, offloading, and shipment of petroleum products (via rail cars, trucks, ships, and barges). The project design minimizes the risk of hazardous materials release through appropriate technological development and design; some of these design factors are required by law, as previously discussed, and others will be implemented as mitigation measures, and will receive additional treatment in subsequent portions of this document. In addition to the construction of impervious surfaces for vehicle transportation and maintenance (which would ensure containment of any spilled product in the shipping process), secondary containment of each above ground storage tank would contain one hundred percent of the largest tank plus additional freeboard for rainfall as required by 40 CFR 112.8. Curbing would also be constructed within the loading and unloading rack zones. Targa would also employ similar containment features at the Berth #9 site. These features include the construction of a 6-inch curb in areas that could be affected by a spill while loading/off-loading product to limit the potential of off-site environmental contamination, and technological features, the utilization of a removable spill containment boom throughout the loading/unloading process, and the application of quick release couplers at the loading/unloading arm (each of these additional construction measures was identified as a mitigation measure above)Additionally, Targa would prepare, submit, and implement a hazardous materials business plan which would ensure all employees, including drivers, handlers, and haulers are adequately trained on handling the hazardous materials, as directed in the above listed mitigation measures. Furthermore, Targa would submit this document to the Stockton Port District prior to construction (to ensure the Office of Emergency Services is well informed with any potential hazardous materials on the proposed Targa site and to allow the Port to provide any additional training it deems necessary).

Likewise, Targa would be required to develop and implement a hazardous materials plan would be inspected by the Stockton Office of Emergency Services to ensure proper implementation and related training. Therefore, this impact would be less than significant with the implementation of the discussed mitigation measures.

7.8.7.2 Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident: Less than Significant with Mitigation

As previously discussed, the typical foreseeable accident would include the leak or rupture of a pipe or tank that may occur with varying discharge rates. To limit the potential of any such discharge, Targa would train personnel on properly handling hazardous materials. Such training would be accomplished in conjunction with the development and implementation of a hazardous materials business plan which is required by law. Additionally, Targa proposes utilizing a design which limits the potential of spills or leaks that reach offsite locations. Such design features include the following, each of which was listed as a mitigation measure in *Section* 7.7.5.4:

- Each tank would have a fixed roof that would be constructed of stainless steel to limit potential for leakage or spillage.

- Under-tank leak detection would be provided for each of the fuel storage tanks. The leak detection system would meet the requirements of API 650. Such a leak detection system would alert Targa staff should any leaks occur, thereby ensuring quick action in the event of a spill. Such a timely response would ensure that any such spill is controlled as close to the onset as possible.

- Each tank foundation would have a membrane liner, which would be constructed of High Density Polyethylene, thereby ensuring any potential leakage is contained to the maximum extent possible, within the foundation area of the tank.

- The site has been designed with a buffer/berm area between the site and additional facilities and the San Joaquin River. This berm would limit the potential of off-site environmental contamination.

- Training to Targa employees would be completed with the preparation, submission, and implementation of a hazardous materials business plan.

- Targa will employ SCADA as previously discussed to ensure that leaks are discovered and rectified as quickly possible, thereby limiting the potential effect to the environment due to a leaky pipe or tank.

These features would be incorporated into the design of the tanks to ensure the capture of fugitive product and would result in impacts which would be less than significant.

7.8.7.3 Emit Hazards Within 0.25 Mile of a Proposed or Existing School: Less than Significant with Mitigation

The nearest existing school is the George Washington Elementary school 1.5 miles from the proposed Targa tank farm, 1.1 miles from Berth #9, and 0.8 of a mile from the closes location of the petroleum product pipeline. No school has been proposed within the 0.25 mile radius of the proposed facilities. As the entire Port area is zoned PT, it is unlikely that a school would be constructed within this radius. Furthermore, the nearby open areas south east of the proposed lease area, across the San Joaquin River, have been left open for the use of City oxidation ponds. As such, it is highly unlikely that a school would be allowed to be constructed within 0.25 mile of the proposed lease area.

In particular, the design with the buffer zone between the proposed lease area and the San Joaquin River and all adjacent properties would limit the potential for any contamination of sites within 0.25 mile of the proposed lease area. These design features, a buffer/berm between the propped Targa tank farm and the San Joaquin River and other off-site locations, would ensure maximum containment of any fugitive product and any resulting contamination would be less than significant with the application of these mitigation measures.

7.8.7.4 Located On a Hazardous Materials Site: No Impact

As determined by the EDR, the proposed Targa project is not located on a hazardous materials site (See Appendix H for Phase I ESA). Therefore, there is no impact.

7.8.7.5 Create a Safety Hazard for People Working or Residing Within 2 Miles of a Public Airport: No Impact

The Stockton Metropolitan Airport is the nearest airport to the proposed lease area and is roughly 10 miles to the southeast. As such, the proposed lease area does not pose a threat to the safety of those residing or working within airport zones. The site is surrounded by industrial uses, a police training facility, and a wastewater treatment facility and no airports or airstrips. Lastly, the development of this land was discussed in the 2006 Pacific Ethanol EIR and it was determined that no impact to airports or those residing or working within airport zones would occur from the development of the land. As such, there will be no impact to a nearby airport.

7.8.7.6 Create a Safety Hazard for People Working or Residing Within the Vicinity of a Private Airstrip: No Impact

No private airstrip is within the vicinity of the proposed lease area and as such, the proposed lease area does not pose a threat to the safety of those residing or working within airport zones. The development of this land was discussed in the 2006 Pacific Ethanol EIR and it was determined that no impact to airstrips would occur from the development of the land.

7.8.7.7 Physically Impair or Interfere with the Implementation of an Emergency Response Plan: No Impact

The locally implemented Emergency Response Plan is a Hazardous Materials Area Plan that has been developed and implemented by the San Joaquin County Office of Emergency Services. (Stockton is one of several facilities that have an agreement with the County Office to operate within the parameters of the Plan.) The Emergency Response Plan is updated triennially and was most recently updated in 2008. Under the Plan, considerations have been made for the Port area, including the consideration of hazardous materials. The proposed lease area is located within an area that was previously planned for development and inspected as part of 2006 Pacific Ethanol EIR and did not compromise the implementation of the existing Emergency Response Plan. Furthermore, the proposed Targa project's operations are significantly less than those proposed in the 2006 Pacific Ethanol EIR (which reviewed 99 acres, whereas this project would encompass 19 acres). As such, the construction of the proposed Targa project would not result in an impact on the implementation of the County's Emergency Response Plan.

7.8.7.8 Create Risk Involving Wildfires or Wildlands: No Impact

No wildland is within the vicinity of the Port, and as such, the proposed Targa project does not pose a threat to destruction of any such lands. The site is surrounded by industrial uses, a police training facility, and a wastewater treatment facility and no wildlands. Lastly, the development of this land was discussed in the 2006 Pacific Ethanol EIR and it was determined that no impact to wildlands would occur from the development of the land. As the local landscape has not changed since the implementation of the 2006 Pacfici Ethanol EIR, there remains no impact to wildlands or wildfires.

7.9 HYDROLOGY AND WATER QUALITY

This section analyzes the potential impacts on water quality and hydrology that may result from the proposed Targa project. The proposed lease area is in the San Joaquin River Hydrologic Region. The discussion is based primarily on information contained in the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR), and other available literature. This section also analyzes potential impacts of the improvements on Berth #9 to allow movement of crude oil across the docks to the tank farm. Additionally, this section addresses the following potential issues related to the implementation of the proposed Targa project: general water quality issues, flood hazards, storm drainage issues, and project-specific impacts on the City of Stockton's (City) Regional Wastewater Control Facility. These data sources were supplemented by observations made during site visits conducted during the months of September and October 2011.

7.9.1 Background

7.9.1.1 Regulatory Context

The water surface quality is federally regulated by the Environmental Protection Agency (EPA). In California, the SWRCB and its RWQCBs regulate groundwater quality. The RWQCB is the primary agency tasked with protecting California surface and groundwater quality, including the regulation of discharges from wastewater treatment facilities and of urban stormwater runoff.

The RWQCB for the Central Valley Region has established a Water Quality Control Plan (WQCP) for the Sacramento and San Joaquin River Basins that designates surface and ground waters in the region and assigns beneficial uses to such waters. Additionally, the WQCP and establishes water quality objectives to protect those waters. The water quality objectives and beneficial uses are collectively referred to as Water Quality Standards.

<u>Federal Regulations</u>

The Clean Water Act (CWA) (33 USC 1251-1376), is the federal legislation that governs water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

Applicable sections of the act are as follows:

- Section 301 prohibits the discharge of any pollutant by any person, except as in compliance with sections 302, 306, 307, 318, 402, and 404 of the CWA.

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.

- Section 401 requires an applicant for any federal permit that proposes an activity that may result in a discharge to "waters of the United States" to obtain certification from the state that the discharge would comply with other provisions of the Act. Certification is provided by the Regional Water Quality Control Boards.

- Section 402 establishes the NPDES, a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the United States. This permit program is administered by the Regional Water Quality Control Boards and is discussed in detail below.

- Sections 404 establishes a permit program for discharges of dredge or fill material into waters of the United States. This permit program is administered by the Corps.

Section 303(d) of the CWA requires states to develop a list of impaired water bodies. In California the SWRCB has developed the list of impaired waters, applying the following criteria: chlopyrifos, DDT, dianzion, Group A pesticides, mercury, unknown toxicity, and organic enrichment/low Dissolved Oxygen (DO). Due to low DO levels, the San Joaquin River Deep Water Shipping Channel (SJDWSC) has been placed on the impaired list. (SWRCB Total Maximum Daily Load (TMDL) (SWRCB, 2011). Due to these impairments, the proposed Targa project would necessarily need to operate within the parameters of the TMDL and all other water quality standards as discussed below.

Potential impacts to biological resources arising from dredge and fill of waters of the United States are discussed in detail in Section 7.4 (Biological Resources).

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code § 13000 et seq.), which is the principal law governing water quality regulation in California, establishes a comprehensive program to protect water quality and the beneficial uses of State waters. The Act established the SWRCB and nine RWQCBs, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The Porter-Cologne Water Quality Control Act also implements many provisions of the federal CWA, such as the NPDES permitting program. CWA § 401 gives the SWRCB the authority to review any proposed federally permitted or federally licensed activity which may impact water quality and to certify, condition, or deny the activity if it does not comply with State water quality standards. If the SWRCB imposes a condition on its certification, those 20 conditions must be included in the federal permit or license.

RWQCB Construction Permit

The RWQCB administers the NPDES stormwater permitting (federal stormwater permitting program which is implemented by each state) program in the Central Valley Region for construction and industrial activities. Because the proposed site is an industrial site which would require construction prior to its operation, Targa Terminals, LLC (Targa) would be required to

obtain both a construction and industrial NPDES permit from the RWQCB prior to construction and/or operation.

To require a construction permit, a construction site must disturb one acre or more of land (this is more commonly referred to as a General Construction Permit). Qualifying projects require the applicant to submit a Notice of Intent (NOI) to the SWRCB prior to the beginning of construction. The General Construction Permit requires the preparation and implementation of a Stormwater Polution Prevention Plan (SWPPP), which must be completed before construction begins. The SWPPP must describe the BMPs and monitoring programs that would be implemented during the construction phase to ensure that runoff from the construction site does not cause or contribute to exceedances of water quality standards relevant to receiving waters downstream of the site. Implementation of the plan starts with the commencement of construction and continues through the completion of the project. Upon completion of the project, the applicant must submit a Notice of Termination to the RWQCB to indicate that construction is completed.

RWQCB General Industrial Permit

For industrial sites, such as the proposed lease area, a General Permit for Discharges of Stormwater Associated with Industrial Activities (General Industrial Permit--GIP) is required. Under the industrial site, operators must submit an NOI to the SWRCB prior to commencing operations. The GIP also requires that a SWPPP discussing stormwater and dry weather runoff BMPs and monitoring programs be prepared prior to the commencement of operations. The BMPs must meet the technical design standards required by the GIP and must ensure that runoff from the site does not cause or contribute to exceedances of Water Quality Standards relevant to the site's receiving waters. The SWPPP must be implemented as long as industrial activities are ongoing.

As the Port is recognized by the State as an independent municipality, the Port has the permitting status of any other municipality. As a result, the Port has been issued a Municipal NPDES Permit by the RWQCB. This permit prohibits discharges from the Port's storm drain system from exceeding water quality standards in the local receiving waters. The Port has implemented a comprehensive SWPPP under this permit to minimize impacts to water quality from the urban runoff flowing through its storm drain system. The Port administers a Port-wide Municipal Stormwater Management Program, which includes participation by Port tenants. The Port's municipal NPDES permit does not relieve tenants of their individual responsibility for compliance with industrial and construction stormwater permit regulations, or requirements to obtain individual NPDES permits for point-source discharges. Runoff from the proposed Targa project would enter the Port's storm drain system, and would, therefore, be subject to the Port's SWPPP and Stormwater Management Program implemented pursuant to the Port's municipal NPDES permit.

California Toxics Rule (CTR) of 2000 (40 CFR Part 131)

This rule establishes numeric criteria for priority toxic pollutants in inland waters as well as enclosed bays and estuaries to protect ambient aquatic life (23 priority toxics) and human health

(57 priority toxics). The CTR also includes provisions for compliance schedules to be issued for new or revised NPDES permit limits when certain conditions are met. The numeric criteria are the same as those recommended by the EPA in its CWA Section 304(a) guidance.

Spill Prevention, Control, and Countermeasure
SPCC regulations require the Port to have in-place measures that help ensure oil spills do not occur. However, if they do, there are protocols and response equipment in place to contain the spill and neutralize the potential harmful impacts. A SPCC Plan and an Oil Spill Contingency Plan (OSCP) would be prepared that would be reviewed and approved by the Regional Water Quality Control Board or the California Department of Fish and Game Office of Spill Prevention and Response, in consultation with other responsible agencies. The SPCC Plan and OSCP would detail and implement spill prevention and control measures.

Local Regulations

The City of Stockton operates the receiving the wastewater treatment facility for waters from the proposed Targa project. The City's treatment plant is subject to its own NPDES permit. The City, to ensure compliance with its NPDES permit, requires industrial operations to obtain an Industrial Waste Discharge Permit for the discharge of domestic wastewater and project process-related wastewater to its treatment facility. This permit, obtained from the City, contains specific numeric criteria for the flows entering the treatment plant from the proposed Targa project and would require Targa to monitor its flows (ensuring adherence to these numeric criteria).

In addition to adherence to the City's NDPES permit, Targa would be required to comply with the Port's Stormwater Development Standards Plan, under its municipal NPDES permit programs. Pursuant to the Port's Plan, Targa would be required to implement certain BMPs designed to control sources of pollutants including:

- Storm drain signage (e.g., signs stating "no polluting flows to river");
- Specific requirements related to the design of certain outdoor areas used for material storage, trash storage, loading docks, vehicle/equipment maintenance, vehicle/equipment washing, and fueling (to prevent or reduce the potential for stormwater runoff to contact potential pollutants in these areas);
- Tracking controls for transitions between paved and unpaved areas (to reduce the potential for sediment tracking onto paved roadways); and
- Specific design requirements for open drainage culverts (to prevent erosion and reduce storm flow velocities).

Additionally the Stormwater Development Standards require that the project applicant treat runoff from the area of new development (from the newly created impervious area). The selected treatment device may consist of one or more BMPs, such as: vegetated swales, extended

detention basins, and media filters (that meet specified design requirements to treat small rain events and the initial portion of larger rain events). Specifically, the treatment devices must capture and treat a volume of rain to be produced from a 24-hour 85th percentile storm event (the maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity multiplied by a factor of two).

7.9.2 Methodology

This analysis considers the potential for the proposed Targa project impacts to local surface and groundwater hydrology and water quality. The impact analysis focuses on foreseeable changes to existing hydrological and water conditions. The impact analysis provides a separate discussion for major proposed Targa project components. Potential water and sediment quality impacts of the proposed Targa project are assessed through a comparison of literature data (including all applicable water quality criteria) and results from past projects in the Port, to estimated discharges from the proposed Targa project using scientific expertise of the preparers. Mitigation measures are identified where appropriate.

7.9.3 Environmental Setting

The lease area is bounded on three sides by secondary dikes apparently erected to accommodate the deposition of dredge spoils on the site by the Corps. Although site topography within the area bounded by these dikes and the San Joaquin River is basically level, it possesses several mini-topography characteristics that have been created by dredge depositions that have not yet been leveled. The site has not yet been topographically surveyed; it is, therefore, not known whether wastewater discharge or stormwater runoff would require pumping.

The proposed lease area is protected by a levee system. Levee failure has a relatively small probability of occurrence (levees may be subject to site specific structural failure, erosion, damage from vegetation and rodents, and earthquakes). The Port is responsible for the levee system and has established an annual levee monitoring and inspection program. The purpose of the program is to determine whether reinforce the structural integrity of the perimeter levee is required.

7.9.3.1 Regional Setting

The proposed Targa project is within the Port, which is located within the San Joaquin River Basin. The Port is flat and nearly featureless, with the natural topography of the area broken by natural and manmade water channels such as sloughs, bayous, irrigation canals, drainage ditches, ship channels, and ponds. Average annual precipitation in Stockton is 13.7 inches (General Plan Background Report 2004). The lease area is flat (sloping from west to east at about a 1% grade) and is surrounded on the north, northwest, and west by the San Joaquin River. The lease area is not located in an area subject to inundation by seiche, tsunami, or mudflow, and it is not adjacent to topographic elevations which would induce or permit mudflow.

San Joaquin River and Delta

The Sacramento - San Joaquin River Delta (Delta) is a 1,150-square-mile, triangular region of land and water at the confluence of the Sacramento and San Joaquin Rivers (U.S. EPA, 1996). The Delta's waterways comprise a matrix of aquatic habitat of approximately 75 square miles, and extend from Suisun Bay, in the west, to the towns of Sacramento and Stockton to the north and east. Major inputs of freshwater to the Delta are from the Sacramento River in the north and the San Joaquin River in the south, while tidal fluctuations bring salt water from Suisun and San Francisco Bays, with which the Delta forms an interconnected estuary system. The proposed site is located on the San Joaquin River, several miles inland of Suisun or San Francisco Bay; however, due to tidal conditions and vessel travel through the Delta channels, the Delta has increased salinity.

Within these waterways, saltwater intrudes from the San Francisco Bay, converging with freshwater from the San Joaquin River, to create brackish conditions. Due to the diversity of upland, open water, mudflat, and wetland habitats, the Delta is used by a number of species, both for permanent residence and as a migratory route. The San Joaquin River provides habitat for Chinook salmon and steelhead trout, both important sport fish with declining populations. These aquatic habitats are also used by a diversity of invertebrate species, while migrating birds use riparian vegetation, tidal marshes, and open water.

Over the last 150 years, much of the Delta's wetland and upland habitats have been converted for urban or agricultural uses. Most of the remaining areas of natural vegetation have been fragmented into small areas along the margins of sloughs, rivers, and the many islands scattered through the delta. This loss and fragmentation of habitats has resulted in the decline of many wildlife species. Some of these species are now listed as threatened or endangered and are restricted to small areas of remaining habitat.

San Joaquin River Deep Water Shipping Channel

The San Joaquin Deep Water Shipping Channel (SJDWSC) is a portion of the river that is maintained by dredging (to allow for larger ships) and that begins at the mouth of the river near Antioch and extends until the Port of Stockton East Complex. Any vessel seeking to enter the Port of Stockton East Complex (including those seeking to facilitate the proposed Targa project) is required to travel the SJDWSC. As such, all restrictions to the channel would apply to the proposed Targa project.

7.9.3.2 Flooding

The lease area is located within Federal Emergency Management Agency (FEMA) Flood Zone X. Zone X includes those areas of minimal flood hazard from the principal source of flood in the area and which are determined to be outside the 0.2 percent annual chance floodplains (FEMA Flood Insurance Rate Maps, City of Stockton, CA, Panel 15 of 45 Community Panel Number 0603020015E, 2002).

7.9.3.3 Storm Drainage System

The Port has developed a Stormwater Development Standards Plan (DSP). The project is south of Washington Street and within the DSP's East Complex. All stormwater within this complex drains to a stormwater retention basin. During years when the retention basin reaches a high level, stormwater is pumped to the San Joaquin River (Stockton Port District Stormwater Development Standards Plan, 2006). The Stockton Port District DSP specifies a number of BMPs. The proposed lease area drains to an earthen channel around the north and east perimeter that discharges to an existing 30" concrete pipe culvert. The culvert discharges to a ditch along Navy Drive and culminates at the East Complex retention basin.

7.9.3.4 Surface Water Quality and Supply

The San Joaquin River flows adjacent to the west side of the proposed lease area; the proposed lease area is located along the eastern boundary of the Delta. All waterways within the Delta, including the San Joaquin River, have been designated as impaired for a variety of contaminants, primarily from agricultural sources in the surrounding region. Pollutant impairments in the waterways include various pesticides and unknown toxicity among others. The most recently produced TMDL "impaired waters" list included the San Joaquin River as being impaired by several pollutants, including: Diazinon, Chlorpyrifos, DDT, Group A Pesticides, and Mercury (2009 RWQCB TMDL publication, Appendix: A).

7.9.3.5 Groundwater Basin Characteristics

The lease area overlies the San Joaquin Valley Groundwater Basin, which is a subsection of the Greater Central Valley Basin. Relative to the lease aera, ground water occurs at between 14 and 17 feet below the surface (Geotechnical Report—2006 EIR). Groundwater in the area is recharged by local precipitation, and through percolation from the surrounding surface waters. Under existing conditions, the site is vacant land, which allows for ground water recharge through the percolation of precipitation at the site. The thickness of the alluvial aquifer ranges from around 100 feet on the eastern end of the county to over 3,000 feet on the southwestern end; the thickness underlying the lease aera is approximately 1,000 feet. Aquifer recharge areas are those surface areas that exhibit the particular soils and subsurface geologic conditions that allow water to pass into the water-bearing strata. The efficiency of these recharge areas varies, with substantial recharge areas located along local watercourses. These primary watercourses include the San Joaquin and Calaveras Rivers (City of Stockton General Plan Background Report, 2004).

Groundwater overdraft conditions have existed in the San Joaquin County Basin since the 1920s. Major groundwater extractions around Stockton have caused a greater-than-average rate of decline. In the 1950s, groundwater elevations in this vicinity fell below sea level. Based on research completed by Brown and Caldwell, the State Department of Water Resources estimated the annual overdraft from this sub basin at 70,000 A.F during that period. (2006 EIR).

Average static groundwater elevation records maintained since 1940 indicate a gradual yet constant decline caused by regional overdraft conditions. This decline, which resulted in a 65-

foot drop in the average static level in district wells over a 37-year period, continued through 1977. The availability of supplemental imported supply resulted in a 45 foot recovery in district wells during the following ten years. A six-year drought, however, caused average static groundwater elevations in district wells to then drop approximately 30 feet. Heavy rainfall which occurred in 1993 improved the availability of imported supplies, resulting in a thirty-foot recovery with high average elevations occurring in 1999. Since then these elevations have stayed relatively constant.

7.9.3.6 Port Water Quality Program

Industrial and maritime activities at the Port have the potential to produce many types of pollutants, and the Port goes to great lengths to prevent them from reaching the surrounding waterways. Each year the Port District budgets more than one million on stormwater programs. The primary goal of the Port's water quality program is to improve the quality of the waterways at and around the Port through education, outreach, and, when necessary, enforcement.

As part of the Port's water quality program, the following ongoing activities are carried out:

- The Port maintains and operates an aeration facility in the SJDWSC to help alleviate the problems associated with low dissolved oxygen concentrations (see below for more information).
- The Port conducts an annual Stormwater Managers Workshop for Port tenants and employees who are responsible for stormwater protection at their sites. This workshop highlights new and existing stormwater regulations and offers advice on how to maintain compliance.
- The Port holds an annual Stormwater Open House barbecue before the beginning of each rainy season. This event, open to all Port employees and tenants, increases awareness of the need to protect stormwater and offers vendors a chance to introduce new environmental products.
- The Port conducts a Ballast Water Inspection Program which requires all vessels to complete a ballast water inspection log to verify that ships are making open water exchanges.
- The Port installs and maintains sediment traps in storm drains at key locations that are most susceptible to pollution.
- Port staff inspect all Port property daily to ensure compliance with the Port's stormwater permit.
- The Port maintains and operates a detention pond on the Port's East Complex that collects stormwater and allows for settling and removal of contaminants before the water is released into the San Joaquin River.
- The Port provides location and peripheral support for the Department of Water Resources/California Bay-Delta Authority aeration trial at Dock 20.
- The Port provides stormwater management support and BMP assistance to tenants.

Port Aeration Facility

Dissolved Oxygen (DO) in the water around the Port usually ranges from 3 to 10 milligrams per liter (mg/L), with most aquatic life requiring greater than 5 mg/L to maintain a healthy and diverse population. Some of the factors that affect DO concentrations include water temperature, water depth and flow rate, and the amount of organic material present in the water. The waters around the Port have had historically low DO concentrations. This is due in large part to the geometry of the SJDWSC and the low flows in the San Joaquin River. In an effort to promote a healthier waterway, the Port operates and maintains an aeration facility at the confluence of the Deep Water Ship Channel and the San Joaquin River. The facility consists of two different aeration systems. One system consists of two jet aeration devices that dissolve atmospheric oxygen into the water at a rate of approximately 1,850 pounds per day. The aerators work by pumping air to the bottom of the river, where streams of bubbles are injected into the water. As the bubbles rise to the surface, a portion of the oxygen they contain dissolves into the water. The other system operates on many of the same principles, but it is fed by a tank of pure liquid oxygen (LOX). The LOX is fed through a vaporizer, which allows it to expand into a gas. The oxygen then is fed to a series of platforms that are submerged in approximately 20 feet of water. Each platform is fitted with 250 feet of porous aeration hose that is specially designed to create very small bubbles that dissolve more readily than larger bubbles.

Throughout the year, the Port operates the aerators whenever DO concentrations drop below 5.2 mg/L. However, from August to November, that threshold is raised to 6.2 mg/L to benefit the winter-run of the endangered Chinook salmon that pass through on their way to spawn upstream. DO levels in the San Joaquin River are monitored daily by the Port Environmental and Regulatory Affairs Department using a monitoring station that is maintained and operated by the California Department of Water Resources. Data is collected from this station every 15 minutes, and monitoring is updated every hour. Current data from the Rough & Ready Island station are available for viewing online at the Department of Water Resources California Data Exchange Center.

Although the existing aerators do not eliminate all of the DO problems in the channel, it has been demonstrated that these aerators work well to improve oxygen deficiencies. The Port has partnered with the Department of Water Resources and the California Bay-Delta Authority to implement a much larger aeration unit at Dock 20. This unit is different in that it consists of a large U-tube that diffuses highly oxygenated water to the river. Construction on the new aerator was completed in 2007. Data relating to the effectiveness of the project has been collected and was released in 2010 and demonstrates that the implementation of the project was met with limited success. (Aeration Facility Final Report)

7.9.4 Standards of Significance

The environmental analysis provided in the 2006 Pacific Ethanol EIR considered an impact to hydrology and water quality significant if the proposed Targa project would:

- Violate any water quality standards or waste discharge requirement.

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of amount of surface runoff in a manner which would result in substantial erosion or siltation on- or offsite. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of amount of surface runoff in a manner which would result in flooding on- or off-site.

- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

- Otherwise substantially degrade water quality.

- Place housing within a 100-year flood hazard area as mapped on a federal flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

- Place hazard area structures which would impede or redirect flood flows within a 100-year flood.

- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

- Inundation by seiche, tsunami, or mudflow.

7.9.5 Impacts and Mitigation Measures

Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented in the subsequent section. The proposed Targa project is within the scope of the analysis presented in the 2006 Pacific Ethanol EIR and there are no changed circumstances since the preparation of these documents that require major revisions of the cumulative analysis.

7.9.5.1 2006 Pacific Ethanol EIR Impacts

Impacts of the proposed Targa project related to hydrology and water quality are addressed in Section 3.8 (hydrology and water quality) of the 2006 Pacific Ethanol EIR. Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented below.

Impact #3.8.1 – Violation of any water quality standards or waste discharge requirements or providing substantial additional sources of polluted runoff.

The proposed Targa project would result in the discharge of stormwater and wastewater into the City of Stockton Regional Wastewater Treatment Facility would be subject to the issuance of an Industrial Waste Discharge Permit for the project by the City.

Impact #3.8.2 – Depletion of Groundwater Supplies.

The 2006 Pacific Ethanol EIR noted that the lease area contained permeable surfaces over approximately 90 percent of the site, thus allowing groundwater recharge through percolation to continue to occur across a vast majority of the site.

Impact #3.8.3 – Impedance or Redirection of Flood Flows.

The proposed lease area is not located within a FEMA-designated flood zone, and therefore, no mitigation measures were required as related to flood flows.

Impact #3.8.4 – Levee Failure.

The proposed lease area is protected by a levee system which could be subject to: structural failure, erosion, damage from vegetation and rodents and earthquakes which could result in potential levee failure. However, the probability of such a failure is relatively small, but real.

Impact #3.8.5 – Cumulative Impacts.

The proposed Targa project will not result in any cumulative impacts associated with hydrology. All process water will be treated at the City of Stockton Regional Wastewater Treatment Facility and will be subject to an Industrial Waste Discharge Permit. The proposed Targa project will comply with all applicable NPDES permit programs, and a program will be established to address cumulative water quality impacts from the development in the entire Port area. There is sufficient water supply to accommodate the project and the project will leave substantial areas without impermeable surfaces making them available for recharge, therefore, the project will not deplete the District's groundwater supplies.

The proposed Targa project is within the scope of the analysis presented in the 2006 Pacific Ethanol EIR, and there are no changed circumstances since the preparation of this document that require reanalysis of these impacts.

7.9.5.2 2006 Pacific Ethanol EIR Mitigation Measures

Mitigation Measure #3.8.4 – Levee Failure

The Port shall establish an annual levee-monitoring and inspection program. The purpose of the program will be to review and, if needed, reinforce the structural integrity of the perimeter levee on an annual basis in accordance with applicable local, state, and federal requirements. A licensed geotechnical or civil engineer shall prepare levee treatments proposed under the program.

7.9.5.3 Targa Stockton Terminal Project-specific Impacts

The project specific analysis of hydrological and water quality impacts potentially caused by the proposed Targa project is based on field observation and review of the following information: local planning documents, project maps and drawings, photographs of thelease area, site elevation plans for the proposed facilities, regional watershed maps and analysis of watersheds.

The assessment of impacts for the proposed Targa project includes the assumptions, based on regulatory controls, that the project would include the following:

- A Section 404 (of the CWA) permit from the Corps for wharf construction activities in waters of the Harbor;
- A Section 401 (of the CWA) Water Quality Certification from the RWQCB for any Berth construction that may be required that contains conditions including standard Waste Discharge Rerports (WDR);
- The proposed Targa project would abide by the Port of Stockton's Stormwater Development Standards (SDS) as required by the City's MS4 Permit;
- An individual NPDES permit for stormwater discharges or coverage under the General Construction Activity Stormwater Permit will be obtained by Targa for the proposed Targa project. This permit will include preparation of a project-specific SWPPP with BMPs to prevent runoff of pollutants to SJDSWC waters. The SWPPP would contain the following measures:
  - Equipment shall be inspected regularly (daily) during construction, and any leaks found shall be repaired immediately;
  - Refueling of vehicles and equipment shall be in a designated, contained area;
  - Drip pans shall be used under stationary equipment (e.g., diesel fuel generators), during refueling, and when equipment is maintained;
  - Drip pans that are in use shall be covered during rainfall to prevent washout of pollutants;
  - Construction and maintenance of appropriate containment structures to prevent offsite transport of pollutants from spills and construction debris; and
  - Monitoring to verify that the BMPs are implemented and kept in good working order.
- Other standard operating procedures and BMPs for Port construction projects would be followed, such as: basic site materials and methods; earthworks; excavating, stockpiling, and disposing of chemically impacted soils; temporary sediment basin; material delivery and storage; material use; spill prevention and control; solid waste management; contaminated soil management; concrete waste management; sanitary-septic waste management; and employee-subcontractor training;
- A Debris Management Plan and SPCC Plan would be prepared and implemented prior to the start of construction activities associated with the proposed Targa project;
- Targa will obtain and implement the appropriate stormwater discharge permits for operation of the sites; and
- Targa will comply with berth agreement and lease conditions that include provisions for the inspection, control, and cleanup of leaks from aboveground tank and pipeline sources.

Other assumptions are included in the impact analysis below where applicable.

Construction Impacts on Water Quality

Construction of the proposed Targa project facilities would not require dredge or fill operations or direct waste discharges to Port waters other than episodic discharges of stormwater and hydrostatic test waters under a NPDES permit. In-water construction activities, if necessary for Berth #9 improvements, would likely include the installation of pier pilings (depending on final design and the composition of the mooring dolphin piles). If pilings are required, they will be installed using a barge-mounted crane and pile driver. Berth #9 improvements would occur over a period of about 6 months. Although it would not result in any waste discharges, piling installation and rock placement would suspend bottom sediments into the water column, causing localized and temporary turbidity in near-bottom waters. Permits for any potential in-water construction activities for the proposed Targa project (e.g., Section 401 and Section 404) could require placement of a silt curtain around the pile driving operation. If a silt curtain is deployed, horizontal dispersion of suspended sediments would be limited to the area enclosed by the silt curtain. If a silt curtain is not used, a portion of the suspended particles could be transported horizontally by river currents and eventually deposited in adjacent areas of the SJDWSC. Regardless, resuspended sediments would settle rapidly (within hours) and turbidity levels would decrease to ambient conditions once activities were completed. The amount of sediment disturbed by pile installation and rock placement, and the potential for subsequent sediment accumulation in other areas of the SJDWSC, would be negligible.

DO levels in near-bottom waters could be reduced in the immediate vicinity of the pile installation activities due to the introduction of suspended sediments and associated oxygen demand on the surrounding waters. Reductions in DO concentrations, however, would be short-term and localized and not expected to persist or cause detrimental effects to biological resources. Therefore, reductions in DO levels associated with potential Berth #9 construction activities would not create nuisance or cause regulatory standards to be violated in Port waters. Pier pilings would be pre-stressed concrete or steel and would not contain chemical preservatives (e.g.,creosote) or other soluble materials that could leach into Port waters. Therefore, if pilings are needed as part of improvements for Berth #9 it would not represent a source of contaminants to Port waters during the construction or operation phases of the proposed Targa project. In-water construction activities associated with installation of pier pilings and rock placement around the pilings would not promote erosion of the shoreline or bottom sediment because the pilings would be installed using pile driving, which would cause minimal disturbances to bottom sediments.

Construction Equipment and Potential Effects

A support vessel, a pile-driving barge, barges for materials, and tugs, as well as equipment on the barges (pile-driver, cranes, generators) that would be used to assist with construction of the improvements contemplated on Berth #9, would contain fuel tanks, lube oils, and hydraulic fluids that have the potential to leak or spill into Port waters. Leaks or spills from equipment working in or over the water during construction of proposed Berth #9 improvements would have a very low probability of occurrence based on experience from similar work in the past. Implementation of normal construction standards, including NPDES BMPs, and all other above

mentioned regulations and practices, would minimize the potential for an accidental release of fuels during construction activities. Also, support vessel construction activity would not involve the handling of hazardous materials, and refueling of the vessel would be done according to the Port's policies. Maximum potential spill volumes would also be considered negligible.

Construction contractors are responsible and liable for any accidental spills (e.g., hydraulic fluid leaks and fuel spills) during operations, including spills from the barge, tugs, etc. Equipment is generally available onsite to respond to such accidental spills, and the general spill response practice is to deploy floating booms (by chase boats) made of material that would contain and absorb the spill. Depending on the size of the spill, vacuums/pumps may be required to assist in the cleanup.

SPCC and WDRs to be applied to On-Water Construction Efforts

Spill prevention and cleanup procedures for the proposed Targa project would be addressed in a SPCC plan that would be prepared in accordance with Port guidelines and implemented by the construction contractor prior to the notice to proceed with construction operations. The plan would define actions to minimize potentials for spills and provide efficient responses to spill events to minimize the magnitude of the spill and extent of impacts. Upland construction activities associated with the proposed Targa project could result in temporary impacts on surface water quality through runoff of eroded soils, asphalt leachate, concrete washwater, and other construction materials. No upland surface water bodies exist within the proposed Targa project boundaries. Thus, project-related impacts to surface water quality would be limited to stormwater runoff and, eventually, waters of the Port that receive runoff from the watershed. Runoff from onshore construction sites would enter the San Joaquin River primarily through storm drains. Runoff would occur during storm events, although some runoff could occur from water use as part of construction activities, such as dust control.

The WDRs for stormwater runoff in the Port and City of Stockton require implementation of runoff control from all construction sites. Prior to the start of construction activities for the proposed Targa project, Targa would prepare a pollutant control plan that specifies logistics and schedule for construction activities that will minimize the potential for erosion and standard practices that include monitoring and maintenance of control measures. Control measures would be installed at the construction sites prior to ground disturbance and staging areas, and these measures would be maintained throughout the construction phase. Implementation of all conditions of proposed Targa project permits would minimize project-related runoff into the SJDWSC and potential impacts to water quality.

BMPs to be Employed Throughout Construction to Limit Run-Off

Standard stormwater BMPs, such as erosion controls, soil barriers, sedimentation basins, site contouring, and others would be used during construction activities to minimize runoff of soils and associated contaminants. Erosion controls are used during construction to reduce the amount of soils disturbed and to prevent disturbed soils from entering runoff. Erosion controls can include both logistical practices, such as scheduling construction during seasons with the least potential for erosion (e.g., non-storm seasons), and sediment control practices.. The combined

effectiveness of the erosion and sediment control systems is not easily predicted or quantified (EPA 1993).

Sediment basins and sediment traps are engineered impoundments that allow soils to settle out of runoff prior to discharge to receiving waters. Filter fabric fences and straw bale barriers are used under different site conditions to filter soils from runoff. Inlet protection consists of a barrier placed around a storm drain drop inlet to trap soils before they enter a storm drain. One or more of these types of runoff control structures would be placed and maintained around the construction area to minimize loss of site soils to the storm drain system. As another standard measure, concrete truck wash water and runoff of any water that has come in contact with wet cement would be contained on site so that it does not runoff into the SJDWSC.

Most BMPs used to treat urban runoff are designed to remove or reduce trash, nutrients, or contaminants associated with suspended particles (Brown and Bay 2007). Studies by Caltrans (2004) determined that BMPs that used infiltration or sand filtration methods were most effective at reducing levels of suspended solids, nutrients, and metals in runoff. EPA (1993) reported that measures such as sedimentation basins, sediment traps, straw bale barriers, and filter fabric fences were about 60 to 70 percent effective at removing soils from runoff. Although the specific BMPs that would be used at the proposed lease area have not yet been designed, it is reasonable to estimate that erosion and runoff control BMPs would be 60 percent effective or more at removing soils from runoff that occurred during construction. Additionally, the amount of soils subject to erosion would be limited because the site is flat and runoff patterns can be easily controlled by existing drainage system installed around the lease area that creates a mote and captures all runoff and the duration and intensity of rainfall events in Stockton typically are limited. Therefore, the amount of soil loading to the SJDWSC from runoff during the construction phase of the proposed Targa project would be minimal.

In addition to soils, runoff from a construction site could contain a variety of contaminants, including metals and Polycyclic aromatic hydrocarbons, associated with construction materials, stockpiled soils, and spills of oil or other petroleum products. Specific concentrations and mass loadings of contaminants in runoff would vary greatly depending on the amounts and composition of soils and debris carried by the runoff. Also, the phase of the storm event and period of time since the previous storm event would affect stormwater quality because contaminant loadings typically are relatively higher during the initial phases (first flush) of a storm.

Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel spills during fueling, typically involve small volumes that can be effectively contained in the work area and cleaned up immediately. Other spills of fuels and lubricants from construction equipment on land would have a very low potential to occur and enter storm drains, including during the rainy season, due to implementation of BMPs in the project-specific SWPPP and assuming the following are included in the SWPPP:

- Equipment shall be inspected regularly (daily) during construction, and any leaks found shall be repaired immediately;

- Refueling of vehicles and equipment shall be in a designated, contained area;
- Drip pans shall be used under stationary equipment (e.g., diesel fuel generators), during refueling, and when equipment is maintained;
- Drip pans that are in use shall be covered during rainfall to prevent washout of pollutants; and
- Monitoring to verify that the BMPs are implemented and kept in good working order.

In addition to stormwater discharges, the other construction-related discharge associated with the proposed Targa project would be from hydrostatic waters. Once the proposed Targa project pipelines are installed, they will be hydrostatically tested. The test waters would be collected, treated to remove contaminants, and then discharged under a project NPDES permit. Discharges of treated test waters would not exceed water quality standards or objectives.

Construction activities associated with the proposed Targa project would not result in discharges that create pollution, contamination, or nuisance, or cause regulatory standards to be violated. Some minor changes to water quality would occur as a result of installing pilings, but these changes would not affect beneficial uses. Therefore, construction activities would have less than significant impacts on water quality. No mitigation is required.

Construction Impacts on Potential Flooding

Construction of the proposed buildings, above ground tanks, truck loading racks, railcar loading racks, Berth #9 improvements, access road, and other facilities would add impervious surfaces (i.e., pavement) at Berth #9 and the tank farm site. Existing storm drains and the drainage system installed for the Pacific Ethanol improvements within the rail circle would collect and route runoff from the construction sites at the tank farm site. New storm drains also would be installed inside the containment dikes constructed around the storage tanks as part of the proposed Targa project. The design capacity of the existing and constructed storm drains would be adequate to handle runoff from a 50-year storm event. Construction activities on land would not increase the potential for flooding, impede runoff flows, or endanger people, property, or biological resources because the staging and storage areas would be protected with stormwater controls in accordance with the project's construction stormwater permit and SWPPP. Construction activities for the proposed Targa project would not cause or increase the potential for flooding that could harm people or sensitive biological resources or damage property. Therefore, impacts from construction operations on flood flows would be less than significant. No mitigation is required.

Construction Impacts on Natural Processes of Erosion and Sedimentation

Construction of the improvements of Berth #9, the proposed terminal/tank farm site, and pipeline installation would require grading and trenching that would disturb the ground surface, even in areas that are currently paved. Ground surface disturbance also would result from installation of stone columns under the tanks, the proposed storm drain and other underground utilities, and for excavation of building/ equipment foundations. Since construction activities would include work in one or more rainy seasons, soils exposed by grading and trenching would be subject to erosion by stormwater runoff and/or possibly wind.

Construction sites would be managed by complying with the project's NPDES general stormwater permit, which requires preparation and implementation of a project-specific SWPPP. Standard construction BMPs would include both procedural and structural controls. Procedural controls include minimizing the amount and duration of soils exposed during grading and trenching, washing dirt off of construction equipment, and refueling only in designated areas. Structural BMPs can include silt fences/straw bale barriers or sedimentation basins that would be installed and maintained during construction to minimize sediment runoff. Maintenance of these control measures would include daily checks during the rainy season of systems designed to prevent sediment-laden water from entering storm drains and weekly checks during the remainder of the year with immediate repair of any systems that do not meet specifications. The construction contractor would be responsible for ensuring compliance with permit conditions.

With implementation of procedural and structural BMPs, erosion of site soils to the SJDWSC is expected to be minimal. The small amount of soil that could reach the SJDWSC waters via storm drains or direct runoff would be rapidly dispersed in the immediate vicinity of the drain discharge. Small amounts of sediment added to the SJDWSC via runoff would not cause localized erosion or sedimentation because sediment particles would be sufficiently dispersed prior to settling to the bottom. Effects of runoff on DO concentrations and other water quality parameters from soil runoff into the SJDWSC would be minor and limited to the vicinity of the drain discharge locations. No water quality standards or objectives would be exceeded because of the implementation and maintenance of required BMPs.

Construction activities associated with the proposed Targa project would not accelerate erosion or sedimentation that could not be contained on-site due to implementation and maintenance of required BMPs, as described above. Therefore, impacts to water quality from erosion and sedimentation would be less than significant. No mitigation is required as the SWPPP will provide adequate environmental protection for erosion and sediment.

Operational Impacts to Water Quality

Runoff

Episodic stormwater runoff represents the primary operational discharge associated with the proposed Targa project. Stormwater discharges would be a potential source for contaminants associated with on-site aerial deposition of particulates, fertilizers and pesticides, and other equipment residues, such as from tire wear, brake pad linings, or leaks and spills of petroleum and cleaning agents, which are subject to offsite transport via runoff. Small amounts of fertilizers and pesticides could be used for landscaping at the tank farm. Runoff of fertilizer and pesticide residues could add a small amount of pollutants to SJDWSC waters during storm events. The concentrations of these residues reaching the SJDWSC are not expected to exceed water quality standards or objectives because the amount of these materials applied onsite and susceptible to runoff would be small, soil particles transporting these pollutants would be intercepted using stormwater BMPs, and any remaining residues would be rapidly diluted by SJDWSC waters. Industrial maintenance chemicals, such as cleaners, paints, coatings, and lubricants, would be

brought on site as needed and removed when maintenance is completed. Runoff of maintenance chemicals would not be expected to occur as a result of project operations.

Airborne pollutants, such as exhaust particles from project-related, non-electric equipment and vehicle and vessel operation would be deposited on upland portions of the site, where they would be subject to stormwater runoff into the SJDWSC. However, the facilities associated with the proposed Targa project would be operated in accordance with the industrial SWPPP that contains monitoring requirements to ensure that the quality of the stormwater runoff complies with the permit conditions. These discharges would contribute small and episodic loadings of pollutants to the SJDWSC but would not cause concentrations to exceed water quality standards or objectives.

Stormwater from non-process areas such as parking lots, roads, and buildings would be collected by storm drains and routed to drainage systems. Stormwater from process areas such as tank farms, manifold and equipment areas, and equipment wash-down areas would be collected in a tank and then routed to an oil/water separator to remove oils. The collected oil would be returned to the oil storage system. The water effluent would be discharged to the SJDWSC under the approved NPDES permit (i.e., industrial stormwater permit). Facilities would operate in accordance with an industrial SWPPP that contains monitoring requirements to ensure the quality of the stormwater runoff complies with the permit conditions. Existing regulatory controls for runoff and storm drain discharges are designed to reduce impacts to water quality and would be fully implemented. Targa would be responsible for all conditions of the stormwater discharge permits, including compliance monitoring and reporting, as well as all Port pollution control requirements.

The stormwater system would be designed to handle runoff volumes corresponding to a 50-year storm event at the Berth #9 and the tank farm. Larger storm events would exceed the system capacity which could result in localized ponding. If the treatment system failed to operate under these beyond-design flood conditions, some pollutants could be released to the SJDWSC due to the lack of complete treatment. However, the largest proportion of stormwater-related pollutants is associated with the “first flush”, which is expected to occur well before the stormwater system capacity is exceeded. Thus, given the expectation that the first flush would be captured by the stormwater system, combined with the low probability that the capacity of the system would be exceeded, stormwater discharges from the project operations are not expected to cause exceedences of water quality standards.

Vessel Operations

Vessel traffic near Berth #9 would increase as a result of the proposed Targa project. Inadvertent or illegal discharges from vessels, ballast water discharges, and releases of chemicals from antifouling vessel hull paints and sacrificial anodes represent potential sources of contaminants to Port waters from the proposed Targa project operations. Discharges of polluted water or refuse directly to the SJDWSC are prohibited, and the Port Police are authorized to cite any vessel that is in violation of Port tariffs, including illegal discharges. The number or severity of illegal discharges, and corresponding changes to water and sediment quality, from increased vessel traffic cannot be quantified because the rate and chemical composition of illegal

discharges from commercial vessels are unknown. There is no evidence that illegal discharges from ships presently are causing widespread problems in the Port.

Also, over the past several decades, there has been an improvement in water quality despite an overall increase in ship traffic. Thus, while it is reasonable to assume that increases in the frequency of illegal discharges would be proportional to the change in numbers of ship visits, there is no evidence to support this relationship. Ballast water discharges from vessels at Berth #9 are expected to be minimal because the vessels would be unloading cargo and taking on water for ballast rather than discharging ballast water. Additionally, ballast water discharges are governed by specific ballast water management practices that hve been adopted by the CSLC. These practices are intended, in part, to prevent discharges of contaminants. Regardless, any illegal discharges from vessels at Berth #9 would result in pollution or would be considered a nuisance, and result in potential water quality impacts.

Increases in tanker vessel traffic could also result in higher mass loadings of contaminants, such as copper released from vessel hull anti-fouling paints. While increased vessel traffic associated with the proposed Targa project would increase copper loading in the immediate vicinity of Berth #9, copper leaching from vessel hulls would not be expected to increase concentrations in the SJDWSC to levels above the criterion.

As a condition of the Port's berth use agreement, Targa would be required to conform to applicable requirements of the Non-Point Source (NPS) Pollution Control Program. Targa also would be required to design all terminal facilities whose operations could result in the accidental release of toxic or hazardous substances (including sewage and liquid waste facilities, solid and hazardous waste disposal facilities) in accordance with the state Non-Point Source Pollution Control Program administered by the SWRCB. As a performance standard, the measures selected and implemented would use the Best Available Technology that is economically achievable such that, at a minimum, relevant water quality criteria as outlined by the California Toxics Rule are maintained, or in cases where ambient water quality exceeds these criteria, maintained at or below ambient levels. The applicable measures would include:

- Solid Waste Control - Properly dispose of solid wastes to limit entry of these wastes to surface waters;
- Liquid Material Control - Provide and maintain the appropriate storage, transfer, containment, and disposal facilities for liquid materials; and
- Petroleum Control - Reduce the amount of fuel and oil that leaks from container and support vessels.

The presence of pier pilings would cause some localized deposition of sediments beneath the berth, and some bottom sediments in the vicinity of Berth #9 may be disturbed by turbulence from propeller wash. Resuspended sediments would settle back to the bottom, although some horizontal displacement by currents could occur. However, this would not promote erosion of the harbor bottom or excessive sedimentation near the proposed lease area and Berth #9.

Oil Spills

The other potential project operational source of pollutants that could affect water quality is accidental oil spills on land that enter storm drains and accidental spills from vessels (tankers and barges) while transiting or offloading at Berth #9. Spill-related impacts to water and sediment quality would depend on the characteristics of the material spilled, such as volatility, solubility in water, and sedimentation rate, and the speed and effectiveness of the spill response and cleanup efforts. Activities that involve hazardous liquid bulk cargoes at the Port are governed by the Port RMP. This plan provides for a methodology for assessing and considering risk during the siting process for facilities that handle substantial amounts of dangerous cargo, such as liquid bulk facilities. The Release Response Plan prepared in accordance with the Hazardous Material Release Response Plans and Inventory Law (California Health and Safety Code, Chapter 6.95), which is administered by the SFD, also regulates hazardous material activities within the Port. These activities are conducted under the review of a number of agencies and regulations including the RMP, USCG, fire department, and state and federal departments of transportation (49 CFR Part 176). The Oil Pollution Prevention regulations at 40 CFR 112 describe the requirements for certain facilities to prepare, amend, and implement SPCC Plans. These plans ensure that facilities include containment and other countermeasures to prevent oil spills that could reach navigable waters. In addition, an OSCP is required to address spill cleanup measures after a spill has occurred. For the proposed Targa project, a SPCC Plan and an OSCP would be prepared and then reviewed and approved by the California Department of Fish and Game Office of Spill Prevention and Response, in consultation with other responsible agencies. The SPCC Plan would detail and implement spill prevention and control measures to prevent oil spills from reaching navigable waters. The OSCP would identify and plan as necessary for contingency measures that would minimize damage to water quality and provide for restoration to pre-spill conditions.

The proposed Targa project facility would operate under an OSCP prepared by Targa. The OSCP would provide a finalized list of emergency service providers. Commercial contractors handle most oil spills in the Port and have a variety of response services and equipment (e.g., boats, skimmers, booms, and pumps) to handle all types of spills. In addition, the Port has established conditions that are applied to all new and renewed Berth Use Agreements. These include provisions for the inspection, control, and cleanup of leaks from aboveground tank and pipeline sources that would minimize the potential for impacts from a spill to biological resources.

Potential releases of pollutants from a large spill on land to Port waters and sediments would be minimized through existing regulatory controls. The probability of a spill during the life of the proposed Targa project is low. Oil spilled on the Berth #9 platform structure would be retained on the platform by the 6-inch concrete dike, and oil would drain to containment sumps. The sumps would be equipped with sensors to detect fluid levels, pumps to transfer the contents into the terminal oil water treatment system, and alarms that could trigger operational responses (e.g., shut down pumping and inspections). These features would reduce the potential for any spilled oil on the berth platform to reach the Port waters. Similarly, spills from the tanks and process areas would be retained within the containment dikes, which would minimize the potential for spreading and transport off-site and maximize the efficiency of the recovery and cleanup process.

Residual oil, or oil mixed with stormwater, within the containment dikes would be collected in a tank that would feed a treatment system to remove sufficient oil from the water to meet requirements for discharge of treated stormwater under an NPDES permit. (*See:*Figure 3.5-8—Oil/Water Separator) The collected oil would be returned to the oil storage system.

Spills or leaks of oil from buried pipelines are unlikely to occur, so long as the pipeline is appropriately laid, and the potential risk of oil from a pipeline to reach Port waters before detection and cleanup is remote. Additionally, a number of design features and monitoring procedures have been incorporated into the proposed Targa project to prevent spills from the pipeline. These include regular visual inspections, internal inspections (using "smart pigs"), hydrostatic testing, cathodic protection and external pipe coatings, and automatic safety and control systems.

The extent of water quality impacts would depend on the specific location and size of the spill, as well as local conditions at the time of the spill. However, even if the spilled oil were contained by booms in the water, soluble components of the oil would enter the water and affect water quality in the immediate vicinity of the spill. Targa has a contractual agreement with a regional spill response cooperative that would serve as the emergency response contractor with primary responsibility for containment, cleanup, and health and safety. These contractors are located in the regional area. In addition, operations personnel are trained in the Incident Command System and oil spill containment and cleanup procedures.

Accidental oil spills directly to the SJDWSC waters could occur during vessel transit through the SJDWSC and/or during unloading at Berth #9. It is reasonable to assume that an incremental increase in the probability of an oil spill from a tanker/barge to the Port would be proportional to the increase in vessel calls associated with the proposed Targa project. Oil spills are more likely to occur during unloading than during transit to Berth #9; however, the volumes of spills that occur during unloading typically are less than 50 (bbls). Spill prevention and cleanup procedures for the proposed Targa project would be addressed by the OSCP that defines actions to minimize the magnitude of the spill and extent of impacts. If any oil is observed in the water, unloading operations would be stopped and the facility's OSCP would be activated. The regional spill response cooperative would serve as the emergency response contractor and they would be responsible for containment, cleanup, and health and safety at Berth #9.

Vessels moored to Berth #9 would be surrounded by a spill containment boom prior to initiating unloading operations. Thus, any oil lost from the vessel or the unloading arms to the Port would be contained within the boom, preventing the spread of spilled oil to other areas of the SJDWSC. Oil spilled in the immediate Berth #9 area that contacts rip rap in the shoreline dike or pier pilings could be difficult to recover completely, and residual oil could represent a source for hydrocarbons to SJDWSC waters for periods of weeks to months depending on the rate of oil degradation (i.e., weathering).

The probability of an oil spill from a vessel transiting the SJDWSC is lower than the probability of a spill associated with unloading operations. Nevertheless, a spill in open water would affect water quality at the site of the spill and potentially in other areas of the SJDWSC depending on

the spill volume, transport speed and direction related to currents and winds, and the speed and efficiency of containment and cleanup. Although unlikely, a large spill that could not be contained and cleaned quickly has the potential to impact the shoreline and sensitive biological habitats.

Targa will be required to develop an approved Source Control Program (SCP) with the intent of preventing and remediating accidental fuel releases. Prior to construction, Targa would develop an approved SCP to the approval of the Port Director. The SCP would address immediate leak detection, tank inspection, and tank repair. Targa also would be required to submit to the Port an annual compliance/performance audit. This audit would identify compliance with regulations and BMPs recommended and implemented to ensure minimizing of spills that might affect water quality, or soil and groundwater.

Operations associated with the proposed Targa project would not result in direct discharges of wastes, other than episodic stormwater discharges in compliance with the NPDES discharge permit limits. Stormwater discharges that complied with permit limits would not exceed water quality standards. Therefore, impacts to water quality from stormwater discharges and operations on upland portions of the proposed lease area would be considered less than significant.

Spills or leaks that occur on land are expected to be contained and cleaned up before any impacts to surface water quality can occur. Spills from the pipeline are considered highly unlikely and thus less than significant due to the very low likelihood of a pipeline failure occurring in a location where the oil could reach surface waters and the previously discussed pipeline design features to minimize the potential for pipeline leaks or failures. Spills from vessels at Berth #9 would likely occur during offloading operations, but spill volumes would be small. However, any amount of oil spilled from project operations that reaches Port waters will be contained and cleaned up by spill protocols, which would mitigate spills to a less-than-significant level. Beyond the legal requirements and adopted protocols for oil spills, there are no additional feasible mitigation measures to eliminate completely the potential for spills and illegal discharges from vessels. Thus, the impact to water quality in the surrounding waters is less than significant

7.9.5.4 Targa Stockton Terminal Proposed Targa project-specific Mitigation Measures

The following additional Mitigation Measures have been recommended for the project, to reduce project specific potential impacts to hydrology or water quality, not addressed in the 2006 Pacific Ethanol EIR.

WQ-1 Targa and/or contractor will develop and implement an SWPPP and submit an NOI stating its intent to discharge stormwater to the SWRCB prior to beginning construction activities. The SWPPP must specify Best Management Practices that would minimize all construction pollutants from contacting stormwater, with the intent of keeping all products of erosion from moving off-site into receiving waters. Standard construction BMPs would include both procedural and structural controls. Procedural controls include minimizing the amount and duration of soils exposed during grading and trenching, washing dirt off of construction equipment, and

refueling only in designated areas. Structural BMPs can include silt fences/straw bale barriers or sedimentation basins that would be installed and maintained during construction to minimize sediment runoff.

WQ-2 Spill prevention kits shall always be in close proximity when using hazardous materials (e.g. crew trucks and other logical locations).

WQ-3 No fueling shall be done near waterways, near wetlands or immediate floodplains, unless equipment stationed in these locations is not readily located, i.e., pumps, and generators. For stationary equipment that must be fueled on-site, containment shall be provided in such a manner that any accidental spill of fuel shall not be able to enter the water or contaminate sediments that may come in contact with water. Any equipment that is readily moved out of the channel shall not be fueled in the channel or immediate floodplain. All fueling done at the job site shall provide containment to the degree that any spill shall be unable to enter the channel or damage river and wetland vegetation.

WQ-4 Targa will prepare a pollutant control plan that specifies logistics and schedule for construction activities that will minimize the potential for erosion and standard practices that include monitoring and maintenance of control measures.

7.9.6 Hydrology and Water Quality Initial Study Responses

Table 7.9-1: Hydrology and Water Quality Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☑	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☐	☑
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☐	☑
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☐	☑
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☑	☐

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☐	☑
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☑	☐	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☑	☐	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☑	☐	☐

7.9.7 Responses to Initial Study Questions

7.9.7.1 Violate Any Water Quality Standards: Less than Significant

The proposed Targa project would comply with all applicable development standards of the SDS which has been adopted to enable the Port to meet its (MS4) NPDES Permit to control stormwater runoff water quality. As described above, the DSP requirements include mandates that the proposed Targa project include as part of its design, implementation of source control BMPs to address storm drain signage, tracking controls, open drainage culverts, and any outdoor areas for material or trash storage, areas related to vehicle and equipment maintenance or washing, and loading docks; all relevant source control BMPs would be implemented as part of the project and are considered project design features. Additionally, the SDS requires construction and implementation of a facility to treat stormwater runoff according to specified volume or flow parameters. The proposed Targa project includes a water treatment feature which would be designed, built, and maintained pursuant to the SDS requirements to treat the runoff from the new impervious surface areas at thelease area.

Through implementation of BMPs in accordance with the SDS, the proposed Targa project would ensure the Port's NPDES permit requirements are met relative to flows from thelease area, and by doing so, it is anticipated that water quality standards would be maintained as required by the Port's permit relative to the runoff from the project area. Furthermore, through the inclusion of the aforementioned BMPs it is anticipated that the proposed Targa project would: not violate any applicable permit requirements, that water quality standards in receiving

waters would be maintained, and that the proposed Targa project would have less than significant water quality impacts.

In addition, it is unlikely that construction at the proposed Targa project berthing site would negatively affect surface water quality as the majority of the construction would be wholly contained within the existing maintenance shed (the limited construction in the water will include the potential pile driving as discussed above). Such construction consists of the fire water system, a foam system, compressed air systems, a stormwater system, operational pumps, pump houses, and a fuel delivery pipe. No grading should be necessary, and any excavation would be extremely limited (excavation would be required to run pump piping from the berth to the tank farm. Furthermore, because the berthing area has developed, impermeable surfaces (concrete, asphalt, and a metal structure—the existing maintenance shed), surface water runoff would drain and discharge into the Port's stormwater collection system and, ultimately, into the SJDWSC. Lastly, because the berthing area consists of developed, impermeable surfaces, it is unlikely that any discharges would seep into the water table, therefore limiting potential groundwater contamination/pollution. As such, groundwater, surface water, and stormwater quality issues would all be less than significant with implementation of the proposed Targa project (including at the site of Berth #9 construction). As such, all effects to ground, surface, and stormwater quality are less than significant.

7.9.7.2 Substantially Deplete Groundwater: No Impact

Design of the proposed lease area has provided ample permeable surfaces over a majority of the site which would allow groundwater recharge through percolation. Potable water and sanitary sewer would be provided by the Stockton Municipal Utilities Department, not directly from site specific groundwater. The project's need for potable water would be limited to furnishing water to visiting ships, the emergency shower and eyewash stations, for water to hose-down equipment, and for facility employee water supply (employee consumption and on-site restrooms). With these limited uses, water consumption at the proposed berth location would be minimal compared to the water provided to the Port by the California Water Service Commission (2006 EIR reported that the Water Service Commission annually provides the Port with over 30,000 acre-feet of water). As As such, the proposed Targa project would not result in groundwater depletion and there would be no impact.

7.9.7.3 Substantially Alter Drainage That Would Result in Erosion: No Impact

The proposed Targa project would not alter existing drainage patterns. An SWPPP would be filed with the Regional Water Quality Control Board prior to project construction to ensure that erosion is limited to the greatest extent feasible. There would be no alteration of the course of the San Joaquin River. Stormwater from the site would be discharged to the Port's adjacent stormwater drainage storage pond. No impact has been identified.

7.9.7.4 Substantially Alter Drainage That Would Result in Flooding: No Impact

The proposed Targa project would not alter existing drainage patterns. An SWPPP would be filed with the Regional Water Quality Control Board prior to project construction to limit the

potential of flooding due to the construction of the proposed Targa project. There would be no alteration of the course of the San Joaquin River which would cause downstream flooding. Stormwater from the site would be discharged to the Port's adjacent stormwater drainage storage pond, thereby limiting the possibility for discharge outside of the facility (and potential flooding). No impact has been identified.

7.9.7.5 Contribute to Runoff that Would Cause Polluted Runoff: Less than Significant

The proposed Targa project has the potential to alter the surface infiltration characteristics of the site, which could result in increases in both the volume and discharge rate of stormwater runoff, which could contribute to flooding onsite or at adjacent properties (although this is highly unlikely—the only property which would likely be affected is the Pacific Ethanol property immediately south of the proposed site and the properties are separated by a berm). Throughout the construction phase of the proposed Targa project, it is possible that some of the runoff water will be polluted, either from leaky equipment of from workers leaving refuse/waste in the open (containers will be provided). Following construction, the impervious surfaces associated with the storage facilities and paved areas are expected to result in increases in peak drainage flows, some of which may be polluted water (again resulting from leaky equipment or spills at the loading rack). To limit potential spills, Targa would comply with the previously discussed SWPPP, SPCC, and all aforementioned BMPs. With the implementation of such programs, the potential pollution would be greatly limited, and, therefore, the potential affects from water pollution runoff would be less than significant.

7.9.7.6 Otherwise Degrade Water Quality: Less than Significant

As discussed above in section 7.9.7.1, Targa would employ BMPs throughout the construction and operations phases of the project to ensure that discharges are limited to the greatest extent possible. Furthermore, Targa would comply with all applicable regulations, including compliance with the Port's SDS and DSP as well as Federal law which required the implementation of an SPCC and an SWPPP; each of these regulations will assist in limiting degradation to water quality, thus leaving the impacts as less than significant.

7.9.7.7 Place Housing within a 100-Year Flood Plain: No Impact

The lease area is not located within a FEMA-designated flood zone; therefore, no housing would be placed within any such zone and the project will not result in any impacts

7.9.7.8 Place Structures within 100 Year Flood Plain: No Impact

The lease area is not located within a FEMA-designated flood zone; therefore, no structure would be placed within any such zone and the project will not result in any impacts.

7.9.7.9 Expose People to Loss Due to Levee or Dam Failure: No Impact

The lease area is protected by a levee system. The Port shall establish an annual levee-monitoring and inspection program which would provide review, and, if needed, reinforce the

structural integrity of the perimeter levee. As such, no impacts, related to loss due to levee or dam failure would occur from the proposed Targa project.

7.9.7.10 Inundation by seiche, tsunami, or mudflow: No Impact

The lease area is not located within areas that are inundated by seiche, tsunami, or mudflows; therefore, no such impacts would occur.

7.10 LAND USE AND PLANNING

This section analyzes the potential impacts on land use and planning that may result from the proposed Targa project. The discussion is based primarily on information contained in the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR), and other available land use planning documentation from the current City of Stockton 2035 General Plan. These data sources were supplemented by observations made during site visits conducted during September and October 2011. The goals and policies of the City of Stockton 2035 General Plan are implemented by zoning regulations. Each area is assigned a land use or zone classification, which describes the standards for use or development. The zoning regulations set forth development standards for such items as building height, property-line setbacks, and landscaping.

7.10.1 Background

7.10.1.1 Regulatory Context

Federal Regulations

No applicable federal plans or policies are anticipated to have an effect on land.

State Regulations

California Environmental Quality Act

The primary applicable state regulation is CEQA, Public Resources Code Sections 21000-211781 and the CEQA Guidelines Code of Regulations Sections 15000-15387. No other applicable State land use plans or policies have been identified.

Government Code – Land Use Laws

California Government Code Sections 65000 et seq. is the foundation for local planning in California. California Government Code Sections 65000 et seq. contains many of the laws pertaining to the regulation of land uses by local governments including: the general plan requirement, specific plans, subdivisions, and zoning.

Enterprise Zone Act and Requirement to Utilize Existing EIRs for Project Approval

California Government Code Sections 7070-7089 is known as the Enterprise Zone Act. The proposed lease area, Berth #9, and pipeline route is located within a California Enterprise Zone, which targets economically-distressed areas using special State and local incentives to promote business expansion and job creation.

The Act requires cities and counties when approving projects with the Enterprise Zone to utilize existing EIRs that have been adopted for projects in Enterprise Zone areas. California Government Code Section 7075 states the following for preliminary applications filed before January 29, 2012:

(5) No further environmental impact report shall be required if the effects of the project were any of the following:

(a) Mitigated or avoided as a result of the environmental impact report prepared for the area.

(b) Examined at a sufficient level of detail in the environmental impact report for the area to enable those effects to be mitigated or avoided by specific site revisions, the imposition of conditions, or other means in connection with the designation of the area.

(c) Identified in the final environmental impact report and the lead agency made written findings that specific economic, social, or other considerations made the mitigation measures or project alternatives identified in the final environmental impact report unfeasible.

Local Regulations

City and County Zoning and General Plan Designations

The California State Legislature, pursuant to Government Code Section 65300, requires each city and county jurisdiction in the state to prepare a local general plan. The general plan is the primary planning document that establishes policies to regulate the development, function, and use of land within the boundaries and planning area of each city or county. General plans are required to contain the following seven elements or chapters: land use, circulation, housing, conservation, open space, noise, and safety. Although all elements carry equal weight, the land use element designates the pattern and scope of development. Land use designations are one of the primary tools cities and counties use to establish a comprehensive plan for guiding development. Typical land use designations are Residential, Commercial, Agricultural, Industrial, and Open Space, with subcategories based on densities or uses. Land use designations are supported by general plan policies that generally define how land can and cannot be used.

General plan policies are supported by local ordinances such as zoning, which describe the specific requirements for developing a parcel within an identified land use designation. Zoning ordinances define the specific allowable uses for each type of land use designation. Land uses may be classified in the zoning ordinance as principally permitted, conditionally permitted, or permitted under other special circumstances. Under most zoning ordinances, principally permitted land uses require a simplified land use permitting process, whereas Conditional Use Permits and other special-circumstance use permits have additional criteria for being considered allowable.

City of Stockton 2035 General Plan

Stockton's General Plan outlines a vision of a long-range physical and economic development as well as conservation. Pertinent policies for industrial uses in the City are outlined in the City of Stockton 2035 General Plan and listed in Table 7.9-1.

City of Stockton Zoning Code- Chapter 16, Article II, Section 16-20

The zoning classification for the proposed lease area, Berth #9 and pipeline route is Port District (PT). The PT zoning district is applied to areas of the City that are operated by "port districts" as formed under the Harbors and Navigation Code Section 6210 et seq., for the operation of port facilities, including wharves, dockage, warehousing, and related port facilities. PT zoning is consistent with the industrial land use designation of the General Plan and the Rough and Ready Island Development Plan for the Stockton Port District (as applicable).

Table 7.10-1: Applicable Land Use Policies

Policy Document/ Section	Policy Number	Policy Statement
Stockton General Plan		
Land Use	LU-5	To encourage, facilitate, and assist the location of new industry, and the expansion of existing industry.
Land Use	LU-5.1	The City shall encourage industrial activities to locate where municipal services are available including adequate sanitary, storm drainage and water facilities as well as easy access to multiple modes of transportation.
Land Use	LU-5.2	The City shall encourage the clustering of industrial uses into areas that have common needs and are compatible in order to maximize their efficiency.
Land Use	LU-5.3	The City shall support the assembly of land for new industrial growth where the fragmentation of parcels and/or the limited size of existing parcels act as a deterrent to new industrial development.
Land Use	LU-5.4	The City shall discourage industrial development in locations where access conflicts with neighboring land uses.

* Sources: City of Stockton General Plan 2035, 2007.

7.10.2 Methodology

Guidelines and key sources of data used in the preparation of this chapter include the following:

- A site reconnaissance survey
- Review of current U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps
- Aerial photography
- Review of local land use ordinances and the City of Stockton General Plan
- Review of State Code pertaining to land uses and development in Enterprise Zones

7.10.3 Environmental Setting

7.10.3.1 Land Use

The proposed lease area and Berth #9 is surrounded by mixed industrial and municipal uses. There are no residential structures on or around the site and, due to the existing development surrounding the site, no residential development is foreseen. The property is bordered immediately to the west by the San Joaquin River. The property to the north contains a training range for the Stockton Police Department. The properties to the east consist of terminalling facilities similar to the one proposed for this site. The properties to the south of the site house a stormwater detention basin, a sewage treatment plant, and wastewater disposal ponds.

7.10.3.2 Planning

City of Stockton General Plan

The proposed lease area, Berth #9 and pipeline route is designated as Industrial by the City of Stockton 2035 General Plan (*See Figure* 7.10-1 General Plan Map). The industrial designation allows offices, retail sales and services, public and quasi-public uses, and other related and compatible uses. Uses with nuisance or hazardous characteristics are allowed. No residential uses are permitted in this designation. The building intensity standard is a maximum of floor area ratio (FAR) 0.60. The general plan includes considerations limiting population/housing and uses allowable in industrial designations. It is unlikely that an appreciable population will develop around the proposed site.

City of Stockton Zoning

As discussed above, the zoning classification for the proposed lease area and Berth #9 is Port District (PT). which consistent with the industrial land use designation of the General Plan and the Rough and Ready Island Development Plan for the Stockton Port District (as applicable).The development and operations of the proposed terminalling and storage facilities are designated a permitted use within the zoning classification. No discretionary approval is required under the zoning code.

Enterprise Zone Designation of Proposed Lease Area, Berth #9 & Pipeline Route

The proposed lease area, Berth #9 and the pipeline route are located within a California Enterprise Zone, which targets economically distressed areas using special State and local

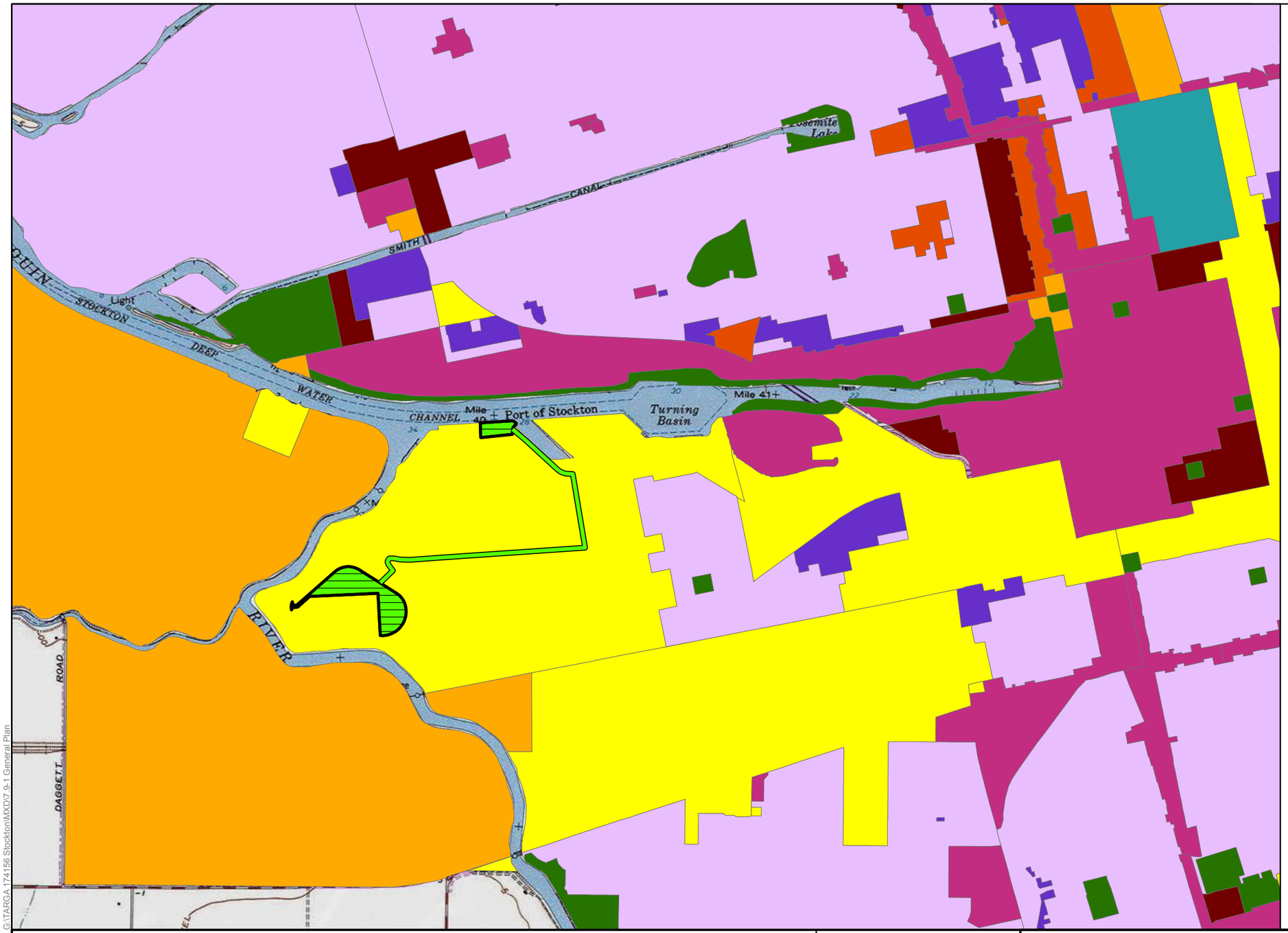
incentives to promote business expansion and job creation (*See Figure* 7.10-3: Enterprise Zone Map). The San Joaquin County Enterprise Zone is a partnership between San Joaquin County (County) and the Cities of Stockton, Lodi, Manteca, Lathrop, and Tracy.

Being located in the San Joaquin County Enterprise Zone entitles the development to a number of benefits from the State and local governments, including:

- Hiring Tax Credit of $37,400 or more per new employee over a five-year period
- Business Expense Deduction - up to $20,000 per year on tangible personal property
- Net Operating Loss Carryover - up to 100 percent carryover to future years
- Net Interest Deduction for Lenders - may result in a 3 percent-to-4 percent increase in return on investment
- One-Stop Permit Centers
- Fee Estimates
- Fast Track Application Processing
- Zero-interest facade improvement loans
- Fee deferral program
- Customized Staffing Recruitment services
- 50 percent discount on building permit, building plan check, and use permit and/or variance application fees
- Assistance from the Economic Review Committee and Development Coordinator
- Use of existing EIRs for Redevelopment Project and Enterprise Zone areas

Previous Land Use Decision

The Stockton Port District in 2006 approved Pacific Ethanol's proposed development plans, which included construction and operation of an ethanol transshipment facility for receipt, storage, loading, and transport of ethanol to refineries and gasoline distribution centers. The Targa Stockton Terminal Project is consistent in character and operations to the previous Pacific Ethanol Terminal and Storage Facility approval granted by the Port Board of Commissioners. Both projects called for loading and unloading racks for both truck and rail modes of transportation. Both had similar storage tanks configurations with Pacific Ethanol proposing 16 storage tanks and Targa Stockton Terminal proposing 20 storage tanks. Both projects occupy approximately the same locations within the 99-acre, previously approved Pacific Ethanol project site.



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Feet

Legend

- Project Site TARGA Terminal

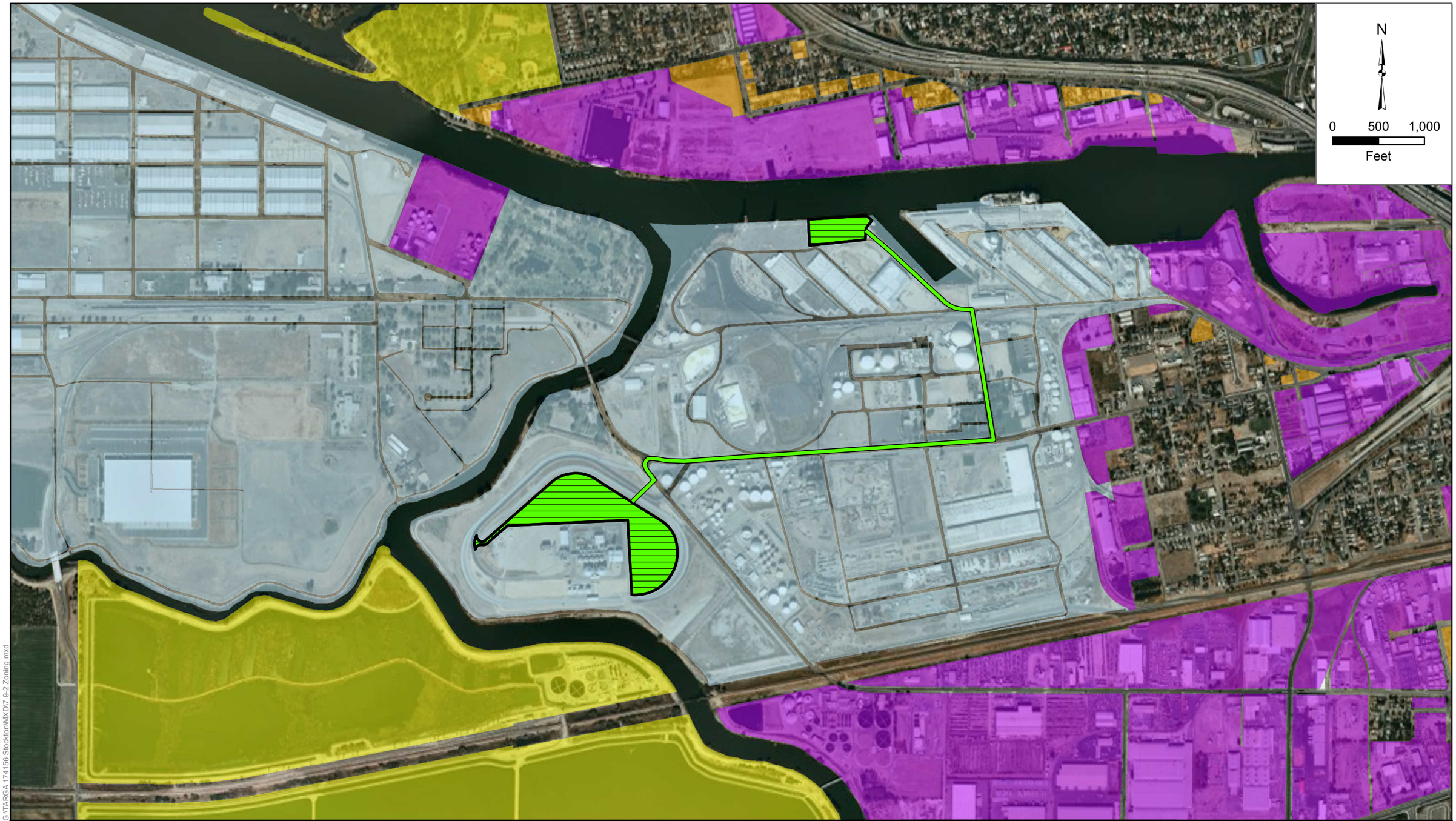
GeneralPlan2035

DESIGNATION

- Administrative Professional
- Commercial
- High Density Residential
- Industrial
- Institutional
- Low Density Residential
- Medium Density Residential
- Mixed Use
- Parks and Recreation

G:\TARGA 174156 Stockton\MXD\7.9-1 General Plan

GENERAL PLAN MAP		TARGA
DATE: Nov 17, 2011	SCALE: 1:24,000	FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**
BY:	FIGURE: 7.10-1	



G:\TARGA 174156 Stockton\MXD\7.9-2 Zoning.mxd

Legend

- TARGA terminal and berth
- TARGA product pipeline

Zoning Classification

- IG (Industrial, General) District-16.16.020.C.2
- IL (Industrial, Limited) District-16.16.020.C.1
- PF (Public Facilities) District-16.16.020.D.1
- PT(Port) District-16.16.020.C.3

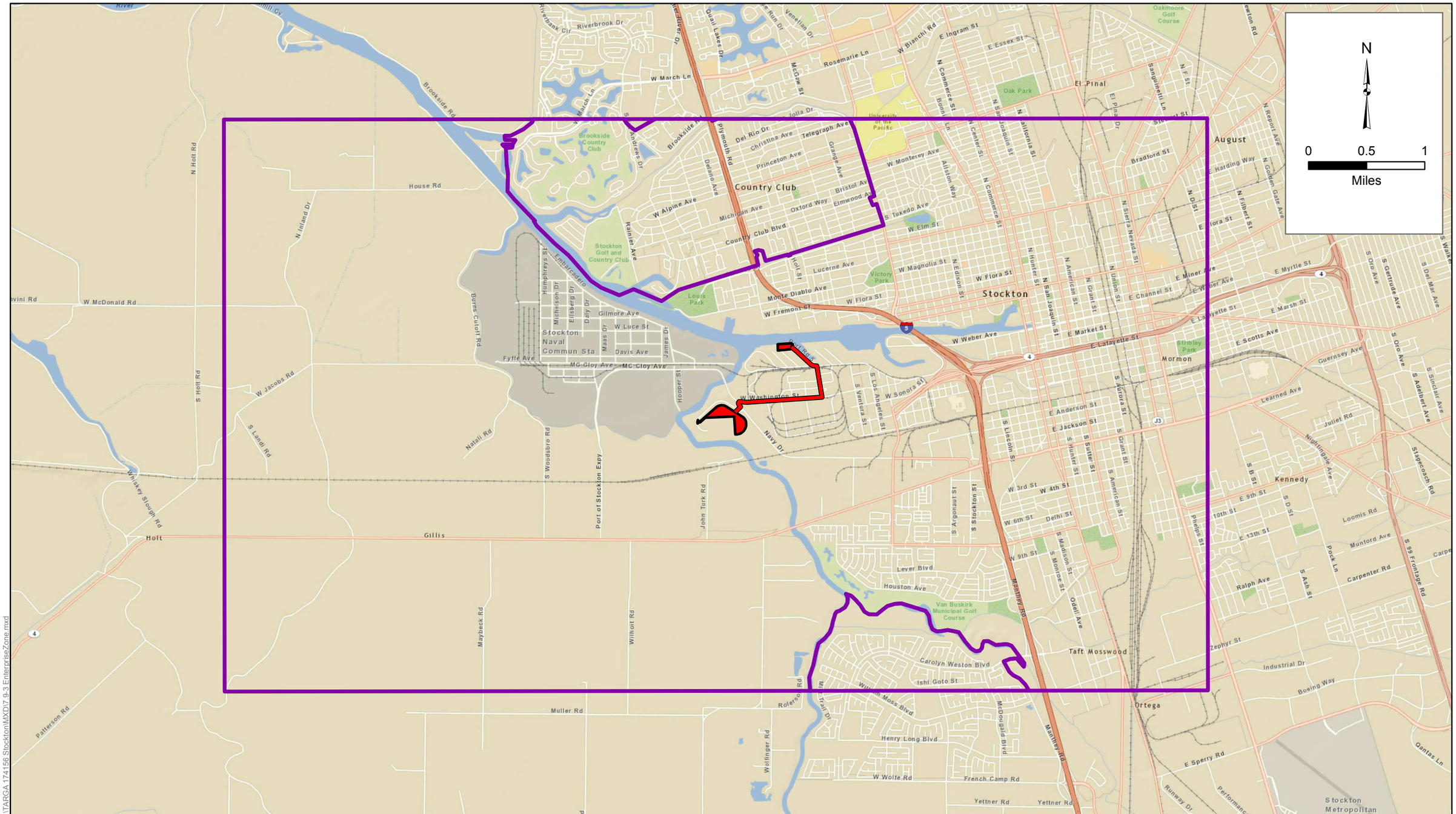
Citation: Stockton Municipal Code, Charter, and Civil Service Rules, Title 16, Division 16, Allowable Land Uses, Zoning Specific Standards

ZONING MAP

DATE: Nov 17, 2011	SCALE: 1:12,000
BY:	FIGURE: 7.10-2

TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**



G:\TARGA 174156 Stockton\MXD\7.9-3 EnterpriseZone.mxd

Legend

- **TARGA Project Area**
- **Enterprise Zone Boundary**

USA Topo Maps

ENTERPRISE ZONE MAP		TARGA
DATE: Nov 17, 2011	SCALE: 1:50,000	FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**
BY:	FIGURE: 7.10-3	

7.10.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to land use and planning significant if the project would:

- physically divide an established community;
- conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or
- conflict with any applicable habitat conservation plan or natural community conservation plan.

7.10.5 Impacts and Mitigation Measures

Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented in the following section. The proposed Targa project is within the scope of the land use and planning analysis presented in the 2006 Pacific Ethanol EIR and there are no changes in circumstances since the preparation of these documents that require re-analysis of cumulative impacts.

7.10.5.1 2006 Pacific Ethanol EIR Impacts

As discussed in the Pacific Ethanol Project Initial Study, there are no impacts related to land use and planning. The Pacific Ethanol Initial Study found that the lease area is surrounded by mixed industrial and municipal uses and would not physically divide a community. The project would not conflict with any applicable land use plans and policies, or habitat plans. Therefore, no impacts were identified.

7.10.5.2 2006 Pacific Ethanol EIR Mitigation Measures

No mitigation measures were recommended.

7.10.5.3 Targa Stockton Terminal Project-specific Impacts

In accordance with the checklist criteria, the proposed Targa project would not have a significant impact to land use or planning. The proposed Targa project is consistent with the City of Stockton 2035 General Plan and the Enterprise Zone in which the proposed lease area, Berth #9 and pipeline route lays. The proposed Targa project would not impair the integrity or the character of the surrounding area. In addition, this use would not be: (1) unreasonably incompatible with or injurious to surrounding properties; (2) detrimental to the health and general welfare of persons residing or working in the neighborhood; or (3) detrimental to the general health, welfare, and safety of residents of the City of Stockton or the Port.

7.10.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

No mitigation measures are recommended.

7.10.6 Land Use and Planning Initial Study Responses

Table 7.10-2: Land Use and Planning Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☐	☑
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☐	☑

7.10.7 Response to Questions

7.10.7.1 Divide a Community: No Impact

The proposed lease area is surrounded by mixed industrial and municipal uses and would not physically divide a community (2006 Pacific Ethanol EIR, page 3-72). The 2006 Pacific Ethanol EIR notes that the project is surrounded by the following uses: to the north is a police training facility and the San Joaquin River, to the east there are industrial uses, and to the south and west there is a stormwater drainage pond and a Wastewater Treatment Facility (Pacific Ethanol Initial Study, page 29). Berth #9 is located adjacent to other Berths and bordered by the SJDWSC on the North and the East. The proposed pipeline route is surrounded by other industrial operations (primarily fuel terminals, including Shell and Buckeye Terminals) and will run the course of an existing public ROW that will reach to Berth # 9. Because the local community entails industrial operations, and is zoned for such activities, the proposed Targa project will not divide any such communities, and there is no impact from the implementation of the proposed Targa project.

7.10.7.2 Conflict with Plans or Policies: No Impact

The proposed Targa project would not conflict with any applicable land use plan, policy, or regulation; therefore, there would be no impact. The proposed terminalling and storage facility is consistent with the existing zoning classification and general plan designations. In addition, the proposed land use is compatible and consistent with surrounding land uses. Previous approval has been granted for a similar facility at the lease area by the Stockton Port District. The Enterprise Zone provides economic incentive to develop a facility at this location and requires the Stockton Port District to utilize previous EIRs to streamline the CEQA review process and avoid duplication. Therefore, there is no impact.

7.10.7.3 Conflict with Habitat Conservation Plan: No Impact

The proposed Targa project would not conflict with any applicable habitat conservation plan or natural community conservation plan. As discussed throughout Section 7.4 (in particular 7.4.7.6), the proposed Targa project will not conflict with the SJMSCP, the lone HCP (City and County both participate in this plan) to which Targa would be bound. As such, there would be no impact to an HCP from the implementation of the proposed Targa project.

7.11 MINERAL RESOURCES

This section describes mineral resources in the Stockton area and analyzes the potential impacts on mineral resources that may result from the proposed Targa project. The discussion is based primarily on United States Geological Survey topographic and geologic maps, information contained in the City of Stockton's 2035 General Plan Draft Environmental Impact Report, and the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR), and other available mineral resource literature.

7.11.1 Background

7.11.1.1 Regulatory Context

Federal Regulations

There are no federal regulations regarding mineral resources that are applicable to the project.

State Regulations

California Surface Mining and Reclamation Act

The California Surface Mining and Reclamation Act of 1975 requires the State Geologist to classify lands into Mineral Resource Zones (MRZ) based on the known or inferred mineral resource potential of that land. The classification process is based solely on geology, without regard to land use or land ownership. The primary goal of mineral land classification is to help ensure that the mineral resource potential of lands is recognized and considered in the land use planning process.

Local Regulations

San Joaquin County General Plan

The San Joaquin County General Plan states that mineral deposits of significant quantity, value, or quality, as identified by the California Geological Survey reports as MRZ-2, shall remain in open space uses until extraction of resources, unless the immediate area has been committed to other uses. MRZ-2 is defined as areas where adequate information indicates significant mineral deposits are present, or where it is judged that a high likelihood exists.

7.11.2 Methodology

Information for this section was obtained from the City of Stockton 2007 General Plan Background Report and Draft Environmental Impact Report.

7.11.3 Environmental Setting

7.11.3.1 Regional Overview

Important extractive resources in San Joaquin County include sand, gravel, natural gas, peat soil, placer gold, and silver. Extraction of these minerals is focused in the southwestern portion of the County in the vicinity of the San Joaquin River.

7.11.3.2 Study Area Setting

The area of the proposed Targa project is classified as a MRZ-1; adequate information indicates that no significant mineral deposits are present or it is judged that little likelihood exists for their presence. The proposed Targa project does not contain any known mineral resources including any rock, sand, or gravel resources.

7.11.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to mineral resources significant if the project would:

- result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, or
- result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

7.11.5 Impacts and Mitigation Measures

Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented in the following section. Impacts of the Targa Stockton Terminal Project related to mineral resources are addressed in Section 3.10: Mineral Resources of the 2006 Pacific Ethanol EIR. The proposed Targa project is within the scope of the mineral resources analysis presented in the 2006 Pacific Ethanol EIR and there are no changes in circumstances since the preparation of these documents that require reanalysis of cumulative impacts. As discussed in the Initial Study for the 2006 Pacific Ethanol EIR, the project would not result in a loss of a known mineral resource.

7.11.5.1 2006 Pacific Ethanol EIR Impacts

As discussed in the Pacific Ethanol Project Initial Study, there are no impacts related to mineral resources.

7.11.5.2 2006 Pacific Ethanol EIR Mitigation Measures

No mitigation measures were recommended, as no impacts were identified.

7.11.5.3 Targa Stockton Terminal Project-specific Impacts

The proposed Targa project and associated pipeline facilities does not contain any known mineral resources including any rock, sand, or gravel resources and it is not expected that the relatively developed area would contain mineral resources, because the soil is expected to have similar characteristics. Furthermore, if any mineral resources were to be discovered on thelease area, it is not feasible to mine them given the developed status of the lease area vicinity and the Stockton Zoning Ordinance of PT, which does not allow for quarrying or mining within this zone. Thus, the proposed Targa project would not result in significant mineral resource impacts.

7.11.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

No mitigation measures are recommended, as no impacts have been identified.

7.11.6 Mineral Resources Initial Study Responses

Table 7.11-1: Mineral Resources Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐	☑
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☐	☑

7.11.7 Responses to Initial Study Questions

7.11.7.1 Loss of Mineral Resource: No Impact

No significant mineral deposits are present in the project area or it is judged that little likelihood exists for their presence (2006 Pacific Ethanol EIR, page 3-73). The proposed Targa project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, as no significant mineral deposits are present in the project area, or it is judged that little likelihood exists for their presence. Therefore, there would be no impact.

7.11.7.2 Loss of Mineral Resource Recovery Site: No Impact

The City of Stockton 2035 General Plan identifies the project area to be classified as a MRZ-1; adequate information indicates that no significant mineral deposits are present or it is judged that little likelihood exists for their presence. The project area does not include a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, there would be no impact.

7.12 NOISE

The following section addresses noise as it relates to the construction and operation of the proposed Targa project. A review of the setting surrounding the proposed lease area was carried out in order to identify any noise impacts that might occur. Those who are considered noise sensitive receptors closest to the project are identified in the 2006 Pacific Ethanol EIR. Noise sensitive receptors closest to the lease area are identified as well as the laws, ordinances, regulations, and standards that regulate noise levels at those receptors. The following discussion addresses noise terminology, existing noise levels in the project area, anticipated noise levels from project operations, and how impacts to noise-sensitive receptors would be avoided. Noise generated by the project is assessed using California Environmental Quality Act (CEQA) and noise guidelines adopted by the City of Stockton and the noise impact evaluation made in the 2006 Pacific Ethanol EIR.

7.12.1 Background

7.12.1.1 Fundamentals of Environmental Acoustics

The decibel scale used to describe sound levels is a logarithmic rating system to account for large range in audible sound intensities. A general rule for the decibel scale is that a 10-decibel (dB) increase in sound is perceived as a doubling of loudness by the human ear. For example, a 55 dB sound level would sound twice as loud as a 45 dB sound level. Generally, people cannot detect differences of 1 dB whereas a 5 dB change is clearly noticeable.

Several sound measurement descriptors are used to assess the effects of sound on the human environment. These include the equivalent sound level, L_{eq}, which is the level of a constant sound that has the same sound energy as the actual fluctuating sound. It is similar to the average sound level. The day-night sound level, L_{dn}, is similar to the 24-hour L_{eq} except that a 10 dB penalty is added to sound levels between 10 p.m. and 7 a.m. to account for the greater sensitivity of people to sound at night. The Community Noise Equivalent Level, or CNEL, also places a weighted factor on sound events occurring in the evening hours. L_{90} is the sound level that is exceeded 90 percent of the time and is often used to describe the background or residual sound level. Each of these sound level descriptors is found within the City of Stockton 2035 General Plan or City Municipal Code describing noise regulation or policy.

Acoustics is defined as the science of sound, including the generation, transmission, and effects of sound waves, both audible and inaudible. Noise, on the other hand, is generally defined as loud, unpleasant, unexpected or undesired sound that disrupts or interferes with normal human activities. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The objectionable nature of sound is caused by its *pitch* or loudness. *Pitch* is the height or depth of a tone or sound wave, depending on the relative rapidity (frequency) of the sound vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. *Intensity* is a measure of the amplitude or height of the sound wave. *Frequency* describes the sound's pitch

and is measured in Hertz (Hz), while intensity describes the sound's loudness and is measured in dB.

Applicable Sound Measurements

The A–weighted decibel (dBA) is a method of sound measurement which assigns weighted values to selected frequency bands in an attempt to reflect how the human ear responds to sound. The range of human hearing is from 0 dBA (the threshold of hearing) to about 140 dBA which is the threshold of pain. Examples of noise and their A–weighted decibel levels are shown in Table 7.11–2. In general, a three to five dBA change in community noise levels starts to become noticeable, while one to two decibel changes are generally not perceived. Quiet suburban areas typically have noise levels in the range of 40–50 dBA, while those along arterial streets are in the 50–65+ dBA range. Normal conversational levels are in the 60–65 dBA ranges.

In addition to the actual instantaneous measurements of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. To analyze the overall noise levels in an area, noise events are combined for an instantaneous value or averaged over a specific time period. The time–weighted measure is referred to as equivalent sound level and represented by energy equivalent sound level (L_{eq}). The percentage of time that a given sound level is exceeded also can be designated as L_{10}, L_{50}, and L_{90}. The subscript denotes the percentage of time that the noise level was exceeded during the measurement period. Namely, an L_{10} indicates the sound level is exceeded 10 percent of the time and is generally taken to be indicative of the highest noise levels experienced at the site. The L_{90} is that level exceeded 90 percent of the time and this level is often called the base level of noise at a location. The L_{50} sound (that level exceeded 50 percent of the time) is frequently used in noise standards and ordinances.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within ±1 dBA. The data is then imported into computer sound models. These computer models are used to predict environmental noise levels from sources such as roadways and airports over a given area using equal sound level contours. The accuracy of the predicted models depends upon the distance the receptor is from the noise source and natural attenuation caused by structures and other sound barriers. The closer to the noise source, the greater is the model's accuracy (±1–2 dBA).

Since the sensitivity to noise increases during the evening and at night – because excessive noise interferes with the ability to sleep – 24–hour descriptors have been developed that incorporate artificial noise penalties that are added to quiet–time noise events. The *Community Noise Equivalent Level (CNEL)* is a measure of the cumulative noise exposure in a community during a 24–hour period. The *Day/Night Average Sound Level,* L_{dn}, is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three–hour period are grouped into the daytime period.

The measurement of any sound level requires language used specifically for the measurement of acoustical conditions. Table 7.11-1 defines technical terms that are used in this section.

Appropriate Noise Levels

The "acceptable" guideline level is a day-night equivalent l noise level (L_{dn}) (or Community Noise Equivalent Level [CNEL]) of 80 dBA for outdoor noise levels in industrial districts. If existing levels are found to be above the guideline up to 90 dBA, then the level is considered to be "conditionally acceptable" and additional acoustical analyses are required to demonstrate that noise impacts would be mitigated to a less-than-significant level by appropriate project design. Based on previous noise studies within the Port, existing noise levels within the proposed Targa project area vary by activity as follows:

- heavy truck, 85 dBA;
- rail spur switching operations, 92 to 100 dBA; and
- pistol range noises, 70 dBA.

Such levels are within the "acceptable" category for industrial land use.

As a general rule, sound from localized or point sound sources spreads out as it travels away from the source, and the sound level drops at a rate of 6 dBA for each doubling of distance. If the sound source is long in 1 dimension, such as traffic on a highway, the sound source is considered to be a line source. The sound level from a line source generally would drop off at a rate of 3 dBA for each doubling of distance. If the intervening ground between the line source and the receptor is acoustically "soft" (e.g., ground vegetation, scattered trees, clumps of bushes), an attenuation rate of 4.5 dBA for each doubling of distance is generally used.

Any solid structure such as a berm, wall, or building that blocks the line of sight between a source and a receiver serves as a sound barrier and would result in additional sound attenuation (e.g., raised rail spurs surrounding proposed lease area.) The amount of additional attenuation is a function of the difference between the length of the sound path over the barrier and the length of the direct-line-of-sight path. Thus, the sound attenuation of a barrier between a source and a receiver that are very far apart would be much less than the attenuation that would result if either the source or the receiver is very close to the barrier.

7.12.1.2 Regulatory Context

Federal Regulations

Although there is no singular body of federal environmental noise regulations, several Federal Agencies provide guidance documents which address environmental noise regulations for specific sources. These guidance documents include general residential guidelines and industry specific guidelines (including regulations of construction noise sources).

EPA guidelines provide that a general level of an L_{dn} of 55 dBA (49 dBA energy equivalent sound level [L_{eq}]) would adequately protect residential neighborhoods from excessive ambient sounds (EPA, 1974).[3] The FAA and Federal Interagency Committee on Urban Noise have issued

[3] Where Leq represents *Equivalent Sound Level*: a steady-state sound that has the same energy and A-weighted level as the community noise over a given time interval and Ldn represents *Day-Night Averaged Sound Level*: the 24-hour Leq obtained after addition of 10 dBA to the sound levels from 10 P.M. to 7 A.M.

land use compatibility guidelines which indicate that a yearly L_{dn} of less than 65 dBA (59 dBA L_{eq}) is compatible with residential land uses; however, these guidelines provide that a community may determine that levels up to 75 dBA (69 dBA L_{eq}) are compatible with residential uses and transient lodgings (but not mobile homes), if such structures incorporate noise-reduction features (14 CFR 150, Appendix A). Lastly, under these formulae, a 3-dBA increase is generally considered the threshold of perceptible change, although a 5-dBA typically represents the minimum threshold increase that would generate a community response.

The Federal Transit Administration (FTA) of the U.S. Department of Transportation (USDOT) provides guideline criteria for assessing construction noise (FTA, 2006).[4] Per the FTA guidelines, construction noise that exceeds a 1-hour L_{eq} of 90 dBA or an 8-hour L_{eq} of 80 dBA during daytime hours would provoke adverse community reaction. [5] Furthermore, noise associated with construction is likely to be determined "significant" if: (1) the construction activity is permanent; (2) use of heavy equipment would occur *after* daytime hours; (3) noise exceeds applicable local standards or, in the absence of local standards, exceeds the FTA guidance; and (4) no feasible noise abatement measures can be implemented for noise-producing equipment[6]. Lastly, FTA and the Federal Railroad Administration (FRA) term increases in operational noise of 10 dBA as having an "impact," while increases of 15 dBA or more are "severe." (FRA 1998; FTA 2006). To ensure that the Proposed Targa project does not have any negative impacts or severe noise effects, appropriate mitigation measures would be taken. These mitigation measures would be discussed in detail in Section 7.11.7.3.

State Regulations

The State of California does not provide a specific threshold or definition for "substantial increase in noise." In fact, the State's regulation of "noise" is quite ambiguous and primarily envisions the creation of a noise control office to implement and enforce noise regulation through police powers offered by the Legislature.[7] However, the CEQA Checklist identifies criteria that must be considered when analyzing a project's potential to result in either temporary or permanent impacts on sensitive receptors. These criteria are discussed in detail in Section 7.12.4.

Local Regulations

Stockton 2035 General Plan Health and Safety Element

The Stockton 2035 General Plan Health and Safety Element lists goals, policies, and implementation programs to carry out the City's goals for controlling hazards associated with

[4] *Construction Noise Handbook*. Federal Highway Administration, August 2006. Available at:http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/. Site last visited: October 20,2011.
[5] Federal agencies have differing opinions on determining acceptable levels of noise when considering harm to nearby human receptors.
[6] *Id.* at

[7] NOISE CONTROL ACT. California Health and Safety Code §46000-46080 (2011). Available at: http://www.leginfo.ca.gov/. Last accessed: October 20, 2011.

noise within the city. The main goal listed in the Stockton 2035 General Plan Health and Safety Element is "...To protect the community from health hazards and annoyance associated with excessive noise levels." The following are listed policies within the General Plan that may be applicable to the proposed Targa project:

HS-2.2 Noise Compatibility Guidelines
The City shall allow the development of noise sensitive land uses (which include, but are not limited to, residential neighborhoods, schools, and hospitals) only in areas where existing or projected noise levels are "acceptable" according to Table HS-11.1 "Land Use Compatibility for Community Noise Environments." Noise mitigation measures may be required to reduce noise in outdoor activity areas and interior spaces to achieve these levels.

HS-2.3 Noise Analysis
The City shall require noise analysis of proposed development projects as part of the environmental review process and to require mitigation measures to reduce noise impacts to acceptable levels. The acoustical analysis shall:

a. Be the responsibility of the applicant.
b. Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.
c. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.

Estimate existing and projected (20 years) noise levels in terms of L_{dn}/CNEL and compare the levels to the adopted policies of the Public Health and Safety Element. Recommend appropriate mitigation to achieve compatibility with the adopted noise policies and standards of this Public Health and Safety Element. Where the noise source in question consists of intermittent single events, the acoustical analysis must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance estimate noise exposure after the prescribed mitigation measures have been implemented. If the project does not comply with the adopted standards and policies of the Public Health and Safety Element, the analysis must provide acoustical information for a statement of overriding considerations for the project.

Describe a post-project assessment program, which could be used to evaluate the effectiveness of the proposed mitigation measures.

HS-2.5 Mitigating Highway Noise
The City shall work with Caltrans to mitigate noise impacts on sensitive receptors near Interstate 5, State Route 99, and other key state roadways by requiring noise buffering or insulation in new construction.

HS-2.6 Controlling Truck Traffic Noise
The City shall control noise sources in residential areas and other noise-sensitive areas by restricting truck traffic to designated truck routes.

HS-2.19 Noise Easements

The City shall grant exceptions to the noise standards for commercial and industrial uses only if a recorded noise easement is conveyed by the affected property owners.

City of Stockton Noise Ordinance

The City of Stockton noise ordinance (Title 8, Chapter 8.20– City of Stockton Municipal Code) does not provide quantitative standards and is restricted to regulating "loud, unnecessary, or unusual noise which unreasonably disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area."[8] As such, the primary inquiries are: 1) whether the noise is loud, unnecessary, or unusual; and 2) whether such noise *unreasonably* disturbs the peace or causes discomfort to a *reasonable person*.[9] Because construction noise would not be "unreasonably/unnecessarily" loud or disturbing to local neighborhoods, noise generated by the proposed Targa project would not be regulated under the City's Noise Ordinance. Additionally, so long as the noise produced by the proposed Targa project falls within the ambit of the General Plan (80 dBA or less), or Targa Terminals, LLC (Targa) obtains a noise easement, the proposed Targa project would comply with the City's General Plan. As such, noise generated by the proposed Targa project should be found appropriate per local regulations.

[8] STOCKTON MUNI. CODE §8.20.030. Public Nuisance Noise Ordinance. 2011. Available at: http://qcode.us/codes/stockton/. Last visited: October 20, 2011.

[9] *Emphasis added.*

Table 7.12-1: Definitions of Acoustical Terms

Term	Definition
dB, Decibel	Unit of measurement of sound level
dBA, decibel A-Weighted	A unit of measurement of sound level corrected to the A–weighted scale, as defined in ANSI S1.4–1971 (R1976), using a reference level of 20 micropascals (0.00002 Newtons per square meter).
A – Weighted Scale	A sound measurement scale, which corrects the pressures of individual frequencies according to human sensitivities. The scale is based upon the fact that the region of highest sensitivity for the average ear is between 2,000 and 4,000 Hz. Sound levels are measured on a logarithmic scale in decibels, dB. The universal measure for environmental sound is the A–weighted sound level, dBA.
Hz, Hertz	Unit of measurement of frequency, numerically equal to cycles per second.
Loudness	A listener's perception of sound pressure incident in his ear.
L_1, L_{10}, L_{50}, L_{90}	The A–weighted noise levels that are exceeded 1 percent, 10 percent, 50 percent, and 90 percent of the time during the measurement period.
L_{eq}, Equivalent Noise Level	Also called the equivalent continuous noise level. It is the continuous sound level that is equivalent, in terms of noise energy content, to the actual fluctuating noise existing at the location over a given period, usually one hour. L_{eq} is usually measured in hourly intervals over long periods in order to develop 24–hour noise levels.
CNEL, Community Noise Equivalent Level	The CNEL is a measure of the cumulative noise exposure in the community, with greater weights applied to evening and nighttime periods. This noise descriptor is the equivalent noise level over a 24–hour period mathematically weighted during the evening and night when residents are more sensitive to intrusive noise. The daytime period is from 7:00 a.m. to 7:00 p.m.; evening from 7:00 p.m. to 10:00 p.m.; and nighttime from 10:00 p.m. to 7:00 a.m. A weighting factor of 1 dB is added to the measured day levels defined as 7 a.m. to 7 p.m., evening levels (7 p.m. to 10 p.m.) have a weighting factor of three and 10 dB to the nighttime levels (10 p.m. to 7 a.m.). The weighted levels over a 24–hour period are then averaged to produce the single number CNEL rating.
L_{dn}, Day/Night Noise Level	The same as CNEL except that the evening time period is not considered separately, but instead it is included as part of the daytime period. Measurements of both CNEL and L_{dn} in the same residential environments reveal that CNEL is usually slightly higher (by less than 1 dB) than L_{dn} due to the evening factor weighting.
Lmin, Lmax	The minimum and maximum A–weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

7.12.1.3 Effects of Noise

Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise, but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The OSHA has a worker noise exposure standard, which is set at the noise threshold where hearing loss may occur from long–term exposure. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is significantly shorter.

Sleep and Speech Interference

The thresholds for speech interference indoors are 45 dBA if the noise is steady and 55 dBA if the noise is fluctuating. Outdoor thresholds are 15 dBA higher. Steady noise of sufficient intensity (above 35 dBA), and fluctuating noise levels above 45 dBA have been shown to affect sleep. Interior residential standards for multi–family residences are set by the State of California at 45 dBA L_{dn}. Typically, the highest steady traffic noise level during the daytime is equal to the L_{dn}, and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12–17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is 20 dBA for an older structure and 25 dBA for a newer structure. Sleep and speech interference is therefore possible when exterior noise levels are 57–62 dBA L_{dn} with open windows and 65–70 dBA L_{dn} if the windows are closed. Levels of 55–60 dBA are common along collector streets and secondary arterials, while 65–70 dBA is a typical value for a primary/major arterial. Levels of 75–80 dBA are normal noise levels at the first row of development outside a freeway right–of–way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed and those facing major roadways and freeways typically need special glass windows.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noise intruding into homes or affecting outdoor activity areas. Attitude surveys determined that the causes for annoyance include interference with speech, radio, and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is 55 dBA L_{dn}. At an L_{dn} of 60 dBA, approximately 2 percent of the population is highly annoyed. When the Ldn increases to 70 dBA, the percentage of the population increases to 12 percent highly annoyed. This corresponds to an increase of 1 percent per dBA between an L_{dn} of 60–70 dBA. Between an

L^{dn} of 70–80 dBA, each increase in decibels increases the population highly annoyed by 2 percent.

People appear to respond more adversely to aircraft noise as opposed to general community noise levels. When the L_{dn} is 60 dBA; approximately 10 percent of the population is highly annoyed. Each decibel increase to 70 dBA adds 2 percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in a 3 percent increase in the percentage of the population highly annoyed. Representative outdoor and indoor noise levels in units of dBA are shown in Table 7.12-2.

Table 7.12-2: Typical Sound Levels Measured in the Environment

At a Given Distance from Noise Source	A–Weighted Sound Level in dBA	Noise Environments	Subjective Impression
	140		
Civil Defense Siren (100’)	130	Rock Music Concert	
	120		Pain Threshold
Jet Takeoff (200’)	110		
	100		Very Loud
Diesel Pile Driver (100’)	90	Boiler Room Printing Press Plant	
	80		
Freight Cars (50’)			
Pneumatic Drill (50’)	70		Moderately Loud
		In Kitchen With Garbage Disposal	
Freeway (100’)	60		
Vacuum Cleaner (10’)		Running	
	50	Data Processing Center	
Light Traffic (100’)	40	Department Store	Quiet
Large Transformer (200’)	30		
	20	Private Business Office	
		Quiet Bedroom	
Soft Whisper (5’)	10	Recording Studio	
			Threshold of Hearing
	0		

Source: EPA, 1971; Barnes, et al., 1976.

7.12.2 Methodology

The Noise Element of the City of Stockton 2035 General Plan establishes goals, policies, and criteria for determining land use compatibility with major noise sources within the community.[10] The Plan provides two central goals:

> Goal One: Protect the citizens of the Stockton Planning Area by preventing incompatible land uses from encroaching upon areas with existing noise-producing areas.
>
> Goal Two: Protect the economic base of the Stockton Planning Area by preventing incompatible land uses from encroaching upon areas with existing noise-producing uses.

Additionally, the Plan provides eight Policies. The first five restrict residential development near existing noise sources. The sixth addresses commercial uses and relegates such uses to 75 dB L_{dn}/CNEL (as measured from the nearest property line). Policy seven requires that industrial uses not generate noise exceeding 80 dB L_{dn}/CNEL (measured at the nearest property line). Finally, policy eight allows for exceptions to commercial and industrial uses when noise easements are obtained from affected property owners. As such, the proposed Targa project would be limited to producing 80 dB L_{dn}/CNEL (as measured at the nearest property line) unless a noise easement is obtained from affected property owners.

Noise standards governing development activities within the City of Stockton are found in the City of Stockton Municipal Code Chapter, 16 Division 16-340 and the City of Stockton 2035 General Plan. The Noise Standards found in Chapter 16, Division 16-340 were established to implement the goals of the General Plan Health and Safety Element. Noise emissions from fixed and mobile noise sources, are controlled by the City's Noise Ordinance while the City's 2035 General Plan provides guidelines for controlling the noise emanating from industrial facilities and for planning new development. The City of Stockton's General Plan lists goals, policies, and implementation programs to carry out the City's goals for controlling impacts associated with noise within the city.

The City's Noise Standards under section 16-340.020, Activities Exempt from Noise Regulations, provides an exemption to the provisions of the Noise Standards and states the following as exempt:

> "*Public health and safety activities. All transportation, flood control, and utility company maintenance and construction operations at any time on public rights-of-way, and those situations that may occur on private property deemed necessary to serve the best interest of the public and to protect the public's health and well being, including, debris and limb removal, removal of damaged poles and vehicles, removal of downed wires, repairing traffic signals, repair of water hydrants and mains, gas lines, oil lines, and sewers, restoring electrical service, street sweeping, unplugging sewers, vacuuming catch basins, etc. The regular testing of motorized equipment and pumps shall not be exempt.*"

[10] CITY OF STOCKTON GENERAL PLAN, Section 7: Noise. 2007. Attached to 2006 EIR: Appendix K.

The City's General Plan provides guidelines for controlling the noise emanating from industrial facilities and for planning new development. Table 7.12-3, Maximum Allowable Ambient Noise Exposure by Land Use, provides noise level criteria to be used for determining the level of acceptability for various types of land uses as set out in the General Plan Health and Safety Element.

The proposed Targa project would cause a significant impact if it were to violate a local noise ordinance, regulation, or standard. For the project, there are two sets of criteria that must be met. The first is the Stockton Noise Standards, which specify a maximum property line noise level of 80 dBA at most Noise-Sensitive Land Use Types for industrial related noise standards. The second is the OSHA worker safety standards, which have a level of 90 dBA, as previously discussed.

When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers at the property line.

Based on the following criteria from Appendix G of the State CEQA Guidelines, a project may have a significant adverse impact on the environment if it would result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Table 7.12-3. Maximum Allowable Ambient Noise Exposure by Land Use

Land Use Type	Noise Level (L_{dn})						
	0 - 55	56 - 60	61 - 65	66 - 70	71 - 75	75 - 80	> 81
Residential							
Hotels, Motels							
Schools, Libraries, Churches, Hospitals, Extended Care Facilities							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Mining, Industrial, Manufacturing, Utilities, Agriculture							

Normally Acceptable. Specified land use is satisfactory, based on the assumption that any buildings involved are of normal, conventional construction, without any special noise insulation requirements.

Conditionally Acceptable. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features have been included in the design.

Unacceptable. New construction or development should not be undertaken.

If existing noise standards are currently exceeded, a proposed project shall not incrementally increase noise levels by more than 3 dBA

7.12.3 Environmental Setting

7.12.3.1 Study Area Setting

The proposed Targa project facilities will be wholly located on the Pacific Ethanol site which is encircled by a rail spur, however; the Berth area and the proposed pipeline will be located off-site, but within the Port district. The proposed facilities site is higher in elevation by approximately 5 to 10 feet compared to the surrounding area. To the north and west of the proposed lease area is the City of Stockton Police Training Facility and Pistol Range. Beyond the San Joaquin River to the northwest of the proposed lease area is Rough and Ready Island. The City of Stockton stormwater retention basin and Sewage Treatment Plant are found to the southeast of the lease area. North of the proposed lease area are terminals for NuStar and Tesoro. The proposed pipeline will exit the proposed lease area and run East on West Washington Blvd., then North on Port Road 13, to Port Road 5, and finally to Berth #9. Berth #9 is encompassed by the San Joaquin River to the North and East and is encompassed by the additional Port Berths on the West and South. The nearest sensitive receptors are over 1,500 feet to the North of Berth #9 and will not likely be negatively affected by the proposed Targa project, including operations at Berth #9.

7.12.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered a noise impact significant if the project would:

- expose persons to/generate of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- expose persons to/generate excessive ground-borne vibration or ground-borne noise levels;
- create a substantial permanent increase in ambient noise levels in the project vicinity; and
- create a substantial, temporary or periodic, increase in ambient noise levels in the project vicinity.

7.12.5 Impacts and Mitigation Measures

Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented in the following section. Impacts of the project related to noise are addressed in Section 3.11 (Noise) of the 2006 Pacific Ethanol EIR. The proposed Targa project is within the scope of the noise analysis presented in the 2006 Pacific Ethanol EIR and there are no changes in circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

7.12.5.1 2006 Pacific Ethanol EIR Impacts

The Pacific Ethanol project's noise impacts would result from the construction and operation of the ethanol production facility and the ethanol storage/transshipment facility as well as off-site

rail improvements. CEQA requires evaluation of noise from trucks/rail resulting from the project. The following impacts were identified in the 2006 Pacific Ethanol EIR:

Impact #3.11.1 – Construction Noise Impacts on Sensitive Receptors

Impact #3.11.2 – Operations Noise Impacts on Sensitive Receptors

7.12.5.2 2006 Pacific Ethanol EIR Mitigation Measures

Mitigation Measure #3.11.1:

1) Construction activities shall be limited to between 6:00 a.m. and 9:00 p.m. If nighttime construction were required, spot noise monitoring would be required to assure that noise levels from construction activities do not exceed 65 Lmax at the property line of the nearest residence. Measures to reduce nighttime construction noise levels may include using noise barriers or reducing the amount of construction activity until noise levels are below the nighttime significance criterion.

2) Construction equipment noise shall be minimized during project construction by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer's specifications) and by shrouding or shielding impact tools. All equipment shall have sound control devices no less effective than those provided by the manufacturer.

3) Material stockpiles and vehicle staging areas shall be located as far as practicable from residences.

7.12.5.3 Targa Stockton Terminal Project-specific Impacts

Construction equipment noise impacts were estimated in the 2006 Pacific Ethanol EIR and were deemed to have no significant impact; furthermore, the 2006 EIR suggested that no additional mitigation measures would be required for noise impacts.[11] The construction equipment used for this analysis is similar to the equipment anticipated for use in the proposed Targa project; therefore, it is unlikely that the proposed Targa project would require mitigation measures. Lastly, the nearest residential area is one mile to the north of the proposed facilities site and over 1,500 feet north of the Berth area; such a distance would allow the noise generated at the proposed Targa project's site to greatly diminish.[12] The Port's calculations (as recorded in the 2006 Pacific Ethanol EIR) have suggested that the noise produced at site would range around 100-110 dB(A).[13] However, because of the distance to the nearest residential area, noise levels perceived at that area would be slightly less than 69 dB(A), clearly placing the effect of the construction noise from the proposed Targa project well under the maximum noise level for an

[11] 2006 EIR at 3-78 to 3-82.

[12] *Id.* at 3-76.

[13] *Id.*

industrial site, per the City Plan (industrial sites are allowed a maximum of 80 dB.[14]*See* Table 7.12-4 below for likely noise levels to be generated by the proposed Targa project.

Table 7.12-4 Estimated Noise Levels

Construction Equipment Noise Source	Typical Noise Level (dBA)	
	50 feet	100 feet
Pneumatic tools	85	79
Truck (e.g., dump, water)	88	82
Concrete mixer (truck)	85	79
Scraper	89	83
Bulldozer	85	89
Paver	89	83
Backhoe	80	74
Generator	81	75
Portable air compressor	81	75
Combined equipment	109	103

Source: Federal Transit Agency, 1995.

[14] *Id.*(utilizing 109 dB(A) for the combined equipment sound at the site and decreasing the sound incrementally out to 1 mile—the nearest residential area, the analyst arrived at the conclusion that the sound effect at nearest residential area would amount to 69 dB(A)).

Construction noise levels would be limited by the City Ordinance. Construction would also adhere to the time of day restrictions set by the City Noise Standards Ordinance so as not to disturb residences during the evening hours. Due to the distance between the residences and the lease area; and the fact that the residences are located on the other side of the raised rail spur, the project would not add to the residences' pre-existing ambient noise level. Likewise, noise generated at Berth #9 will not be significant as it will fall within the parameters prescribed by the City Ordinance and will be buffered by the noise of the SJDWSC, any terrain slope, and the distance of over 1,500 feet. Noise generated from the construction of the proposed Targa project would not significantly change the pre-existing noise environment found at the residences. Since construction noise is temporary, it is considered less than significant.

Generation of excessive ground borne vibration or ground borne noise levels

Excessive ground borne vibration or noise levels are not anticipated during either construction or operation of the proposed Targa project. Construction would entail use of equipment and techniques prevalent throughout the region, and would be temporary in nature. No impact has been identified. Ground borne vibration or noise, which may result from the proposed Targa project are considered to be less than significant.

7.12.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

The following mitigation measures would be implemented to reduce the potential noise impacts of the project:

NOISE-1: Advise the affected residents of the proposed construction, including the duration and schedule of activities.

NOISE-2: Wherever feasible, erect barriers or shields near construction equipment (e.g., compressors, pneumatic tools, drills, generators) considered major sources of noise. Barriers and shields effectively employed would reduce noise levels by as much as 15 dB from nearby workers at Pacific Ethanol production facilities.

NOISE-3: Targa would conduct the following: document and respond to each complaint, attempt to contact the person making the noise complaint within 24 hours, determine source of noise, and implement reasonable measures to reduce noise. Submit noise complaint report to the Port monthly during construction.

7.12.6 Noise Initial Study Responses

Table 7.12-5: Noise Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☑	☐
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☐	☑	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑	☐
e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☑

7.12.7 Response to Initial Study Questions

7.12.7.1 Noise Levels Standards: Less than Significant

The 2006 Pacific Ethanol EIR states that the project would create an increase in ambient noise associated with the construction and operation of the storage facilities, truck traffic and railway use.[15] Operational noise levels would be below City of Stockton specifications for land use compatibility as outlined in the Noise Element. The project would potentially add to ambient noise levels currently found at those residences near the project. The City Codes would limit construction noise levels.

Development of the lease area and portions of the pipeline route was evaluated in the Pacific Ethanol EIR and it was concluded that the construction noise level at the nearest off-site receptor would be considered normally and conditionally acceptable for industrial uses.[16] Furthermore, the General Plan states that construction noise occurring between 6 a.m. and 9 p.m. is not significant.[17] As such, by maintaining these hours of operation, construction at the proposed Targa project's site would ensure that the noise levels fall within guidelines provided by the City's Noise Ordinance and General Plan.

The cumulative noise effects of the construction at the proposed Targa project's site were determined to be less than significant in the 2006 Pacific Ethanol EIR. With the addition of the above mentioned mitigation measures, the Port calculated that the residential area nearest to the proposed lease area would receive noises at the level of 62 dB (A) CNEL, less than 10 dB (A) CNEL greater than City required levels.[18] Because the noise received from the construction site at the nearest residences is less than 10 dB(A) greater than the City approved CNEL, the proposed Targa project's construction noise falls within the ambit of "conditionally acceptable" noise levels.[19] Conditionally acceptable noises require no more than "detailed analysis of the noise reduction requirements…and noise insulation features are included in the design."[20] As such, with the aforementioned mitigation measures, the proposed Targa project would be found to have less than significant noise effects.

7.12.7.2 Ground-borne Noise or Vibrations: Less than Significant

The 2006 Pacific Ethanol EIR states that the project would create an increase in ground-borne noise or vibrations associated with the construction and operation of the storage facilities, truck traffic and railway use.[21] Even with the utilization of heavy equipment, ground borne vibrations

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[15] *Id.* at 3-73.

[16] *Id.*at 3-77 to 3-79.

[17] General Plan, 2007 at Section 7.

[18] *Id.* at 2-80; *see also:* Stockton General Plan: Section 7, Policy 3.

[19] *Stockton General Plan:* Section 7, Figure 1.

[20] *Id.*

[21] 2006 EIR at 3-73.

and heightened noise levels will be temporary and limited. As such, ground borne vibration or noise, which may result from the proposed Targa project, are considered to be less than significant.

7.12.7.3 Permanent Increase in Ambient Noise Levels: Less than Significant

The 2006 Pacific Ethanol EIR evaluates the permanent increase in ambient noise levels due to operation of the proposed Targa project.[22] As discussed in the project description, the proposed Targa project does not incorporate many of the permanent noise-producing sources used for the evaluation of operations impact on sensitive receptors.

Potential noise impacts from the electrically driven pumps used at the berth would largely stem from operations of electrical pumps. To adequately facilitate the loading and unloading of vessels, two 1500 horsepower pumps would be operated for unloading purposes; however, these pumps would not be operated simultaneously. The pumps would produce sound levels of 57 to 58 dBA at 25 feet[23]. To minimize noise emanating from the Berth No. 9 area, the pumps would be placed individually within a noise reducing-enclosure (pump house) that would be wholly contained within the currently existing maintenance shed. The pump house would be simple and would consist of partitioned walls within the shed; these walls would attenuate and limit sound emission by the pumps.

The Berth #9 facility would also employ a back-up generator in case the power is interrupted to the pumps. The generator would be operated by a diesel engine, which would be muffled and contained behind the proposed fencing and vegetative screens. The noise emitted from the emergency backup generator would be temporary and only in times of power outage. Sound levels produced by the generator would be less than 60 dBA at 25 feet; noise made by traffic at the nearby intersections would produce far more audible noises compared to the proposed pumps[24].

Furthermore, facilities associated with the proposed Targa site operations typically produce noise levels below the standard of 80 dB L_{dn}/CNEL, as outlined by the City of Stockton 2035 General Plan Noise Element. Such noise levels would not cause an increase in noise levels for the residential properties nearest to the proposed lease area, Berth #9 and pipeline route. These residences include those located on West Fremont Street to the north of the proposed Targa berthing site. These residences are located over 1,000 feet to the north of Berth # 9, across the San Joaquin River and a vacant lot. Sound barriers between the Berth area and the neighborhood include foliage and plant life located alongshore the San Joaquin River and trees which have been planted along the north side of the vacant lot. Due to the distance between the proposed Targa project and the residences, the location of the pumps (within noise reducing enclosures that would be wholly located within the maintenance shed), and the natural noise barriers

[22] *Id.* at 3-80.

[23] Sound levels are based on data from standard references, previous studies, and equipment manufacturers' data.

[24] Sound levels produced by the proposed generator are based on data from standard references and equipment manufacturers' data.

between the proposed lease area and the residences, the project would not add to the residences' pre-existing ambient noise level. As such, noise generated from the proposed berthing site station would not significantly change the pre-existing noise environment found at the residences and would result in less than significant impacts to the existing ambient environment.

7.12.7.4 Temporary Increase in Ambient Noise Levels: Less than Significant

The 2006 Pacific Ethanol EIR states that the project would create an increase in ambient noise associated with the construction of the storage facilities.[25] The 2006 Pacific Ethanol EIR evaluates the temporary increase in ambient noise levels due to construction of the proposed Targa project and has provided ample mitigation measures to ensure compliance with the City's General Plan and Noise Ordinance (see discussion above).[26] It was concluded that the construction noise level at the nearest off-site receptor would be considered normally and conditionally acceptable for industrial uses. Construction noise during the period between 6 a.m. and 9 p.m. is not considered significant and any such increase in noise will be deemed less than significant.[27]

7.12.7.5 Airports: No Impact

The 2006 Pacific Ethanol EIR stated that the proposed Targa project is not located within an airport land use plan area, or within two miles of a public airport. No airports have been constructed within such a zone since the publication of the 2006 Pacific Ethanol EIR; therefore, there is no impact to an airport within two miles of the site, and no additional mitigation measures are required.

7.12.7.6 Airstrips: No Impact

The 2006 Pacific Ethanol EIR states that the project is not in the vicinity of a private airstrip.[28] No airstrips have been constructed within the vicinity of the proposed Targa project since the publication of the 2006 Pacific Ethanol EIR; therefore, there is no impact to an airport within two miles of the site.

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[25] *Id.* at 3-73.

[26] *Id.* at 3-78 to 3-79.

[27] General Plan at Section 7.

[28] *Id.*

7.13 POPULATION AND HOUSING

This section describes population and housing in the Stockton area and analyzes the potential impacts on population and housing resources that may result from the proposed Targa project. The discussion is based primarily on information contained in the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR), the State of California Department of Finance, and other available population and housing literature pertinent to the proposed Targa project, Port, and City of Stockton.

7.13.1 Background

Both Stockton and California have experienced dramatic population growth since 1990. The total population in Stockton increased by approximately 25 percent between 1990 and 2010, and California's total population grew by nearly 20 percent. Stockton's household growth rate was approximately 19 percent, in comparison to an increase of about 13 percent statewide.

The California Department of Finance estimated Stockton's 2010 population at approximately 291,707, a 16 percent increase over Stockton's April 2000 population of 243,771. The Department of Finance estimates that San Joaquin County will be home to 1,229,757 residents by 2030, amounting to approximately 77 percent growth over current figures.

The construction period of the proposed Targa project is expected to take approximately 12 to 14 months. Construction would provide job opportunities for a minimum of 75 to 100 construction workers, with a peak construction workforce of approximately 100 workers. Operations of the proposed Targa project would employ approximately 30 employees.

7.13.2 Methodology

Information on population and housing was obtained from the U.S. Census Bureau 2010 Census data and the California Department of Finance population projections for cities and counties.

7.13.3 Environmental Setting

7.13.3.1 Population

In 2010, the City of Stockton had a total population of 291,707 and the unemployment rate was 17.9 percent.

7.13.3.2 Housing

In 2010, the City of Stockton had a total of 99,637 housing units, of which 9,032 units (9.1 percent) were vacant. Rentals comprised 50.4 percent of the vacant housing units (4,556 units). There are more than 2,000 hotel rooms in the City of Stockton.

7.13.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to population and housing significant if the project would:

- induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure),
- displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere, and/or
- displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

7.13.5 Impacts and Mitigation Measures

Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented in the following section. Impacts of the project related to population and housing are addressed in Section 3.12: Population and Housing of the 2006 Pacific Ethanol EIR. The proposed Targa project is within the scope of the population and housing analysis presented in the 2006 Pacific Ethanol EIR and there are no changes in circumstances since the preparation of these documents that require reanalysis of cumulative impacts. As discussed in the Initial Study for the 2006 Pacific Ethanol EIR, the project was found to have a less than significant impact on population and housing.

7.13.5.1 2006 Pacific Ethanol EIR Impacts

The 2006 Pacific Ethanol EIR Initial Study found that the project would not impact existing housing or displace people. Total employment of the Pacific Ethanol production facility, transshipment and storage facility was projected at 37. This increase in employment was not expected to create a significant impact on local population and housing in the 270,000 person Stockton metropolitan area.

7.13.5.2 2006 Pacific Ethanol EIR Mitigation Measures

No mitigation measures were recommended as no impacts were identified.

7.13.5.3 Targa Stockton Terminal Project-specific Impacts

<u>Construction</u>

Construction of the proposed Targa project would not affect the population of the City of Stockton due to the construction workforce currently available within the City of Stockton, San Joaquin County and nearby areas. Since the project is also within commuting distance of the greater Sacramento and San Francisco Bay areas, no construction workers are expected to relocate as a result of project construction. Construction of the proposed Targa project is not

expected to increase the demand for housing. Therefore, the project would not cause a significant increase in population in the City of Stockton or other communities near the project.

Operations

The project would employ 30 full-time staff for operations. Some of these workers would be hired from outside the City, however, it is anticipated that the existing vacancy rates would accommodate any potential employees relocating from outside the Stockton area. The remaining staff employed would be local and would not require additional housing. The proposed Targa project would not have a significant impact on the housing or population of the Stockton area. Therefore, no mitigation measures, specific to the project would be necessary.

7.13.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

No mitigation measures have been recommended as no impacts have been identified.

7.13.6 Population and Housing Initial Study Responses

Table 7.13-1: Population and Housing Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐	☑
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐	☑

7.13.7 Responses to Initial Study Questions

7.13.7.1 Induce Population Growth: Less than Significant

The 2006 Pacific Ethanol EIR proposed that the facility would require 37 full-time permanent employees, and concluded that no significant impacts on local population and housing would result from the Pacific Ethanol Project (2006 Pacific Ethanol EIR, page 3-82). The project is an in-fill development within the industrial planned area and would not induce development within the area. In 2010, the City of Stockton had an unemployment rate of 17.9 percent and 4,556 vacant rental housing units. The proposed Targa project would have a less-than-significant impact on population growth as construction of the facility would be only 12 to 14 months with a peak employment of 75 to 100 temporary construction workers, and the operation of the facility would only require 30 permanent workers.

7.13.7.2 Displacement of Houses: No Impact

No housing exists on the proposed lease area or within the public ROW of the proposed product pipeline connecting the tank farm to the deep water channel at Berth #9. Therefore, there would be no impact.

7.13.7.3 Displacement of People: No Impact

The proposed Targa project would not displace people, or necessitate the construction of replacement housing. Therefore, there would be no impact.

7.14 PUBLIC SERVICES AND FACILITIES

This chapter describes existing public services and facilities and analyzes the project's potential effects on these resources that may occur with the implementation of the proposed Targa project. Growth and development can directly impact the delivery of critical city services to residents, workers, and visitors. In the City, services are delivered across a sphere of influence of approximately 56.5 square miles. These services include police and fire protection, law enforcement, public works, planning, water and wastewater treatment, library, solid waste/recycling, and others. The location of development is guided by the City of Stockton 2035 General Plan, which considers the spatial relationship of urban activities and the delivery of public services. Much of the land in the area of the proposed lease area was designated as industrial and port services.

7.14.1 Background

7.14.1.1 Regulatory Context

Federal Regulations

The Maritime Transportation Security Act

The Maritime Transportation Security Act (MTSA) requires port authorities and facility operators to designate and train company, vessel, and facility security officers and develop security plans for facilities and vessels based on security assessments and surveys. MTSA regulations also guide implementation of security measures specific to the operations of each facility and compliance with maritime security levels. Regulations regarding the submittal of security plans became effective December 31, 2003; operational compliance were mandated by July 1, 2004. Title 33 Part 105 requires that terminals meet minimum security standards for physical security, access control, cargo handling security, and interaction with berthed vessels. These regulations require that terminal operators submit a Facility Security Plan (FSP) to the Coast Guard Captain of the Port for review and approval prior to conducting cargo operations. The requirements for submission of the security plans became effective on December 31, 2003. Operational compliance was required by July 1, 2004.

International Ship and Port Facility Security (ISPS) Code

The International Ship and Port Facility Security (ISPS) Code was adopted by the International Maritime Organization (IMO) in 2003. This code requires both ships and ports to conduct vulnerability assessments and to develop security plans with the purpose of: preventing and suppressing terrorism against ships; improving security aboard ships and ashore; and reducing risk to passengers, crew, and port personnel on board ships and in port areas, for vessels and cargo. The ISPS Code applies to all vessels 300 gross tons or larger and ports servicing those regulated vessels and is very similar to the MTSA regulations.

Transportation Work Identification Credential Secured Facilities

The Department of Homeland Security (DHS), through the United States Coast Guard and the Transportation Security Administration (TSA), issued a joint final rule (72 FR 3492; January 25, 2007) pursuant to the MTSA, Public Law 107–295, 116 Stat. 2064 (November 25, 2002), and the Security and Accountability for Every Port Act of 2006 (SAFE Port Act), Public Law 109–347 (October 13, 2006). This rule requires all credentialed merchant mariners and individuals with unescorted access to secure areas of a regulated facility or vessel to obtain a Transportation Worker Identification Credential (TWIC). In this final rule, on page 3510, TSA and Coast Guard stated that a phased enrollment approach based upon risk assessment and cost/benefit would be used to implement the program nationwide, and that TSA would publish a notice in the Federal Register indicating when enrollment at a specific location would begin and when it is expected to terminate. TWIC enrollment began in Stockton on August 13, 2008.

Federal Pipeline Regulations

Federal regulations (49 Code of Federal Regulations (CFR) Part 195) require bi-weekly visual inspections of the pipeline route to identify potential threats to the integrity of the pipeline. In addition, highway, utility, and pipeline crossing locations would also require bi-weekly visual inspections (CFR 49 Part 195).

Hazardous Substance Pollution Contingency Plan

Federal and state regulations (SB 2040 and 40 CFR Part 300, the Hazardous Substances Pollution Contingency Plan) require an Oil Spill Response Plan (OSRP). The OSRP contains a list of emergency service providers and third-party contractors who provide manpower and equipment, such as vacuum trucks, boats, oil skimmers, absorbent and skirted booms, dump trucks, portable tanks, absorbent materials, dispersants, steam cleaners, hydroblasters, cranes, and forklifts.

State Regulations

Uniform Fire Code

The Uniform Fire Code (UFC) contains regulations pertaining to the construction and maintenance of buildings and uses of the premises. Topics addressed in the UFC include fire hydrants, fire department access, fire alarm systems, fire and explosion hazard safety, industrial processes, and many other generalized and fire-specific safety requirements for new and existing buildings. "UFC Standards" is a companion publication to the Uniform Building Code (UBC) and contains standards of the American Society for Testing and Materials and of the National Fire Protection Association. The UBC is the primary guiding document that sets the standards for the built environment and is closely tied to the UFC to protect human life and safety. The UFC and UBC are widely accepted at the national level and adopted by individual states. California codes are nearly identical.

California Urban Water Management Planning Act

The California Urban Water Management Planning Act requires urban water suppliers to initiate planning strategies that make every effort to ensure the appropriate level of reliability in their water service sufficient to meet the needs of the various categories of customers during normal, dry, and multiple dry-water years.

California Integrated Waste Management Act

In 1989, Assembly Bill 939 (AB 939), known as the Integrated Waste Management Act, was passed into law. The enactment of AB 939 established the California Integrated Waste Management Board (CIWMB), and set forth aggressive solid waste diversion requirements. Under AB 939, every city and county in California was required to reduce the volume of waste sent to landfills by 50 percent, through recycling, reuse, composting, and by other means. In July 2009, Senate Bill 63 was chaptered into law eliminating the CIWMB effective January 1, 2010. All CIWMB duties and responsibilities have been transferred to the new Department of Resources Recycling and Recovery (CalRecycle), under the Natural Resources Agency.California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 required each jurisdiction to adopt an ordinance by September 1, 1994, requiring any "development project" for which an application for a building permit is submitted to provide an adequate storage area for collection and removal of recyclable materials.

California's Building Code CCR, Title 24, Part 6

Title 24, Part 6 of the CBC describes California's energy efficiency standards for residential and nonresidential buildings. These standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption and have been updated periodically to include new energy efficiency technologies and methods. Title 24 requires constructing according to energy efficient standards for all new construction, including new residential and non-residential buildings, additions, alternations, and buildings repairs.

State Preconstruction Notification and Agency Coordination

California laws require preconstruction notification and agency coordination to protect infrastructure from damage caused by construction activities. Contractor State License Board Enforcement Business and Professions Code 7110, Assembly Bill (AB) 2719, AB 73 (Chapter 328), and Government Section Code Sections 4216-4216.9, requires that contractors must provide proper notification and coordination with appropriate groups before commencing construction activities. In addition, Targa would obtain permits which address potential impacts on groups or agencies that use or own utilities affected by the proposed Targa project.

Underground Service Alert

California state law (Government Code Sections 4216, 4216.2, 4216.9) requires that an excavator contact a regional notification center at least two days prior to excavation of any subsurface installations. The regional notification center for northern California is Underground Service Alert. Underground Service Alert, in turn, would notify the utilities that may have buried

lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific locations of their facilities within the work area prior to the start of excavation. The excavator is required to probe and expose the underground facilities by hand prior to using power equipment.

Local Regulations

The City of Stockton 2035 General Plan Public Facilities and Services Element includes goals and policies for water supply, wastewater, stormwater, solid and hazardous waste, gas and electric services, law enforcement, fire protection, schools, communications systems, and libraries. See Chapter 7.16: Utilities and Service Systems for more details specific to utilities and service systems.

Relevant goals and policies from the City of Stockton 2035 General Plan related to public facilities include:

PFS-1 **Ensure the Provision of Adequate Facilities and Services**. Maintain service levels are adequately funded and allocated strategically.

PFS-1.1 **Maintain Existing Levels of Services.** The City shall give priority to providing services to existing urban areas in order to prevent the deterioration of existing levels-of-service.

PFS-1.4 **Development Impacts to Existing Infrastructure.** The City shall ensure that proposed developments do not create substantial adverse impacts on existing infrastructure and that the necessary infrastructure will be in place to support the development.

PFS-1.8 **Impact Mitigation.** The City shall review development proposals for their impacts on infrastructure (i.e., sewer, water, fire stations, libraries, streets) and require appropriate mitigation measures if development reduces service levels.

Relevant goals and policies from the City of Stockton 2035 General Plan related to law enforcement include:

PHS-7.1 **Police Response Time.** The City shall maintain an average response time of 5 minutes or less for priority one calls.

PFS-7.2 **Staffing Ratios.** The City shall maintain a minimum ratio of 1.5 sworn officers per 1,000 residents served.

Relevant goals and policies from the City of Stockton 2035 General Plan related to fire protection include:

PFS-8.1 Fire Response Time. The City shall work to maintain a fire response time as indicated in Table 9-1 [of the City of Stockton 2035 General Plan], which shall be used to determine future fire stations needs.

PFS-8.2 Insurance Service Organization (ISO) Rating. The City shall strive to maintain an ISO rating of 1 as long as the rating continues to be a benefit to the City.

PFS-8.3 Provision of Station Facilities and Equipment. The City should provide fire station facilities, equipment (engines and other apparatus), and staffing necessary to maintain current levels of service throughout the City, including newly developed areas.

Relevant goals and policies from the City of Stockton 2035 General Plan related to schools include:

PFS-9.1 Appropriate Siting of Schools. The City shall coordinate with school districts to locate new schools in existing residential neighborhoods, the Village areas, and other newly developing areas where they are easily accessible by motorized vehicles, bicycles, pedestrians, and public transportation.

PFS-9.4 Elementary School Sites. The City shall encourage school districts to site elementary schools within residential neighborhoods with a walking radius of approximately 1.5 miles. Elementary schools should be located where students need not cross major arterial or collector streets.

Relevant goals and policies from the City of Stockton 2035 General Plan related to libraries include:

PFS-11.1 Library Standards. The Stockton-San Joaquin County Public Library creates an environment for connecting people and ideas by providing residents of all ages with resources to pursue their educational, civic, business and personal interests. The City shall continue to expand and strengthen library services to meet the educational, informational, recreational and personal development needs of all City residents. The City shall strive to maintain the following standards:

a. 0.40 – 0.60 square feet of library space per person (400 – 600 square feet per 1,000 persons) with five readers' seats per 1,000 persons.
b. two to three books and media materials per 1,000 persons.

PFS-11.3 Branch Library Locations: Siting of Libraries. Libraries shall be located in areas easily accessible by motorized vehicle, bicycles and other non-motorized vehicles, pedestrians, and public transportation, such as shopping centers or neighborhood business districts. If feasible, the City shall seek to site libraries centrally within the service area boundaries of the branch.

7.14.2 Methodology

Potential effects on public services were determined by identifying existing services and considering the potential for interference with or increased requirements for such services that would occur as a result of project construction and/or operation. Construction of the proposed Targa project is not expected to generate a need for police service or fire protection above existing levels of service. Project construction and operation is not expected to be growth inducing (see Chapter 7.12: Population and Housing of the 2006 Pacific Ethanol EIR).

All agencies were contacted to obtain information regarding their existing and projected service capacity, as well as the projected impacts that would result from implementation of the proposed Targa project. Wherever possible (i.e., for agencies that provided a demand factor or service ratio), quantifications were included to demonstrate specific demands.

7.14.3 Environmental Setting

7.14.3.1 Fire Protection

Stockton established a fully paid professional fire department in 1888. The department is led by a fire chief, who directly reports to the city manager. The mission of the Stockton Fire Department (SFD) is to provide a high level of life and property safety through fire control, fire prevention services, emergency medical services and the mitigation of hazardous material incidents. This commitment is intended to safeguard the general economy and welfare of the community through several areas: administration, firefighting, fire prevention, training, and emergency communications.

The Fire Department Administration unit is responsible for establishing policies and procedures. It provides executive supervision, planning, organization, staffing, coordination and budgeting for the department.

The Fire Suppression unit is responsible for combating hostile fires, conserving property through overhaul and salvage operations, providing urban search and rescue, delivering advanced and basic life support medical services, and providing emergency mitigation resources for hazardous material spills and releases. This unit is also responsible for inspecting multi-residential, commercial, and industrial property for code violations and fire hazards and for maintaining the appropriate work records, apparatus and equipment necessary to carry out its mission.

The function of Fire Prevention Hydrant Division is to inspect underground water systems, place new hydrants in newly developed areas and to maintain the current hydrant systems. The City's hydrant system is maintained at the highest level for firefighting readiness (rated Class 1 by the Insurance Services Office).

The Training Division is responsible for developing and coordinating all training activities, including in-service and recruit academy training; reporting on training activities; gathering and maintaining technical data; researching and developing emergency procedures and equipment; verifying appropriate vehicle operating license renewal; and coordinating the use of Fire

Department training facilities. The Training Division ensures that Fire Department personnel meet and achieve recognized training certifications in the areas of firefighter, engineer, EMT-1, paramedic, rescue technician, confined space technician, instructor, and hazardous materials technician. This Division functions as the central point for the purchase and dispersal of firefighting safety equipment. Other duties include serving as the departmental liaison to the SFD auxiliaries for job training and readiness programs, and also acting as Department safety officers and incident safety officers at major emergencies.

The financial consolidation of dispatch functions was initiated in FY 2004-05, and the majority of the operational expenses were moved to the Emergency Communication Fund. If the 9-1-1 fee is raised to full cost recovery, the remaining expenses would be placed within the Emergency Communication. The Emergency Communication Division's mission and function is to receive and appropriately dispatch calls for service from citizens, businesses, and other government agencies. Requests for service are most often of an emergency nature for fire and medical responses, as well as non-emergency calls, including Public Works Department (OMI Thames). The Division dispatches emergency fire, medical and first responder calls within the City of Stockton, as well as approximately 60,000 citizens in contracted fire districts of the Stockton Fire Department. The Division also provides dispatching for fire, medical, and first responder calls for approximately 630,000 people in all of San Joaquin County. Fire communication's personnel also provide Emergency Medical Dispatch (EMD) for all of our customers. The EMD system utilizes a set of questions and responses to determine the type and number of emergency medical responders assigned to each call for service. After the level of response has been ascertained, the call-taker remains on the phone to give pre-arrival instructions specific to the type of emergency call received.

The fire stations that serve the proposed Targa project are Fire Station 6 at 1501 Picardy Drive and Fire Station 1 at 1818 South Fresno Avenue, each approximately 1.5 miles away from the tank farm and Berth #9. The entire SFD has 13 fire stations, housing 13 engine companies, and 3 truck companies. Each fire station has one fire engine and the truck companies are located at Stations 2, 3, and 7. In addition, SFD’s Hazardous Material Team is staffed by Station 10, Swift Water and Dive Rescue Team is staffed by Station 6, and Urban Search and Rescue Team is staffed by Station 3.

The response time goal for the SFD’s is to provide service within four minutes of notification, 90 percent of the time. Generally, service can be provided in this timeframe to areas within 1.5 miles of a fire station.

7.14.3.2 Housing and Redevelopment Department

The Housing and Redevelopment Department functions as a program and service delivery unit created to help address the community's needs for decent housing, a suitable living environment and sustained economic health from both a residential and commercial/industrial perspective. This department is organized into three divisions: Housing, Redevelopment, and Real Property. The Redevelopment and Real Property divisions administer activities in each of the City's six

redevelopment project areas and assist the Economic Development Division of the City Manager's Office in carrying out economic development activities.

The lease area is in the Waterfront Redevelopment Project Area. The Waterfront Redevelopment Project Area Plan was adopted in June 2009 with the merging of three independent Redevelopment Areas: Rough and Ready Island, Port Industrial, and West End. The project area is approximately 3,420 acres and includes most of downtown Stockton. Much of the recent work in this area has focused on Stockton's waterfront and the head of the Stockton Channel.

7.14.3.3 Police

The Port maintains an independent sworn police force to provide Port security. In addition, the City of Stockton's Police Department provides police protection services throughout the City. The Port police force patrols on a 24-hour basis, and is currently served by a total of 13 staff. A minimum of three officers are on duty during a given 24-hour period with one officer in charge of communications and two on patrol. The Port police currently have plans to increase their police force by three sworn officers. The Port patrol maintains mutual aid agreements with the City of Stockton Police Department, the San Joaquin Sheriff's Department, and the California Highway Patrol in the event that backup services are needed.

The Stockton Police department serves all areas within the City limits (56 square miles). The current officer to citizen ratio is about 1 to 693, with an emergency response time between 3 and 5 minutes depending on time of day, location, and the number of requests for services.

The Stockton Police Department's mission is to promote the quality of life in the City of Stockton through its five budget units (administration, telecommunications, support services, investigations, and field services) by:

- Working in partnership with the community to provide a safe and secure environment.
- Recognizing and respecting the diversity and uniqueness of the citizens of the community.
- Being sensitive and responsive to the public without bias or prejudice.
- Utilizing personnel and financial resources in an efficient and effective manner.
- Responding to the ever-changing needs of our community.

The Administrative Services Division is composed of 49 employees and includes six subdivisions: the Chief's Office, Fiscal Affairs and Planning, Fleet and Facility Management, Personnel and Training, Animal Shelter, and Animal Control. The Chief's Office is the executive office of the Department headed by the Chief of Police who, along with two Assistant Chiefs and three Deputy Chiefs of Police, provides direction over all Police Department operations. Within the Chief's Office, the internal affairs section is responsible for maintaining the Fire Department's integrity through complete and timely internal investigations; the Crime Stoppers Unit coordinates the Fire Department's crime tip program; and the Public Information Office coordinates the Fire Department's interaction with the news media.

The Field Services Bureau provides 24-hour-a-day uniformed police patrols responding to calls-for-service throughout the City of Stockton. This Bureau maintains two divisions and is responsible for all Field Service programs including 24-hour-a-day patrol services managing Community Policing Districts. These Divisions also operate Traffic Enforcement, Field Training Officer Program, SWAT Team, K-9 Program, Horse Patrol, Reserve Officers Program, Event Management, Court Liaison, Metro Prisoner Transportation, Explosive Ordnance Detail, Parking Enforcement, School Resource Officers, Safe Neighborhoods and Safe Youth Programs, Truancy Enforcement, and Volunteers in Police Services.

The Neighborhood Services Section of the Field Services Bureau is responsible for neighborhood revitalization through code enforcement activities, beautification and rehabilitation projects, cleanup activities, and development of neighborhood improvement plans. This Section enforces codes, laws and regulations governing abatement of substandard housing conditions in existing residential units; abandoned, dismantled or inoperative vehicles; graffiti; investigation and correction of zoning issues; annual and quarterly hotel and rental property inspections, issuance of operating permits; and monitoring Safe Neighborhood areas for maintenance. The Section processes citizen complaints regarding zoning, housing, public nuisance, vehicle abatement, and graffiti violations.

The Investigations Division, composed of 102 individuals, is responsible for investigating and assisting in the prosecution of major crimes occurring in the City of Stockton. This Division is organized into four operating units: Crimes vs. Persons and Property, Special Investigations, Evidence Identification Unit, and the Crime Information Center. Except for the Crime Information Center, the Investigations Division is located two blocks from the Main Police Facility Building, at 22 East Weber Avenue in the Stewart/Eberhardt Building.

The Crimes vs. Persons and Property Section of Investigations is responsible for investigating murder, robbery, rape, child abuse, assault, domestic violence, child exploitation, missing persons, burglary, auto theft, fraud, embezzlement, and vandalism. The Special Investigations Section is responsible for investigating gambling, prostitution, pornography, organized crime, gang-related crime, narcotics crimes and abatements, alcohol control, misdemeanor follow-up investigations, and any unusual criminal activity. The Evidence Identification Unit collects and analyzes evidence at crime scenes. Under the direction of the Assistant Chief of the Investigations Bureau, the Crime Information Center accumulates and disseminates crime, calls-for-service, and other data throughout the Department and to other law enforcement agencies. The Support Services Unit's 37 employees are responsible for technical support programs in the Stockton Police Department including Records Management, Property Management, and Telephone and Online Report Services.

The Telecommunications Unit's 40 employees are responsible for 9-1-1 emergency communication service including Fire and EMS transfers, 24-hour-a-day Computer-Aided Dispatch, automatic call distribution system, automated records management system and report writing systems, and coordination with the IT Department for all technical support for all Police Department computer and radio system operations.

7.14.3.4 Homeland Security

Port Security Measures

Numerous security measures have been implemented in the Port in the wake of the terrorist attacks of September 11, 2001. Federal, state, and local agencies, as well as private industry, have implemented and coordinated many security operations and physical security enhancements. The result is a layered approach to Port security that includes the security program of the Port Police Department.

The USCG is responsible for enforcement of the MTSA and ISPS Code regulations discussed above. Due to the parallel nature of the MTSA and ISPS requirements, compliance with the MTSA is tantamount to compliance with the ISPS. If either the terminal or a vessel berthed at the terminal is found to be not in compliance with these security regulations, the USCG may not permit cargo operations, and the terminal and/or vessel operators may be subject to fines. In accordance with its responsibilities for land-based security under Title 33 CFR Part 105, the USCG may impose additional control measures related to security.

Targa Stockton Terminal Security Measures

The Targa Stockton Terminal is subject to USCG maritime security regulations discussed above. In compliance with these regulations, the Targa Stockton Terminal will be required to submit a Facility Security Assessment (FSA) and Facility Security Plan (FSP) to the Coast Guard Captain of the Port for review and approval (40 CFR 105.120 *et.seq.*). The Berth #9 FSP would need to include the following:

- Designating a Facility Security Officer (FSO) with a general knowledge of current security threats and patterns, risk assessment methodology, and with the responsibility for implementing and periodically updating the FSP and Assessment and performing an annual audit for the life of the Project:
- Conducting an FSA to identify site vulnerabilities, possible security threats, consequences of an attack, and facility protective measures;
- Developing an FSP based on the FSA with procedures for responding to transportation security incidents; notifying and coordinating with local, state, and federal authorities, preventing unauthorized access; implementing measures and equipment to prevent or deter dangerous substances and devices; and conducting training and evacuation;
- Implementing scalable security measures to provide increasing levels of security at increasing Maritime Security (MARSEC) levels for facility access control, restricted areas, cargo handling, vessel stores and bunkers, and monitoring;
- Conducting security exercises at least once each calendar year and drills at least every 3 months; and
- Mandatory reporting of all security breaches and incidents.

Security training is conducted for the Facility Security Officer of the Targa Stockton Terminal and associated security personnel. This consists of awareness training and basic security guard training; there are annual refresher courses.

Vessel Security Measures

All vessels 300 gross tons or larger that are flagged by IMO signatory nations adhere to the ISPS Code standards. These requirements include:

- Ships must develop security plans that address monitoring and controlling access; monitoring the activities of people, cargo, and stores; and ensuring the security and availability of communications;
- Ships must have a Ship Security Officer (SSO);
- Ships must be provided with a ship security alert system. These systems transmit ship-to-shore security alerts to a competent authority designated by the Flag State Administration, which may communicate the company name, identify the ship, establish its location, and indicate that the ship's security is under threat or has been compromised. For the west coast, this signal is received by the Coast Guard Pacific Area Command Center in Alameda, California;
- International port facilities that ships visit must have a security plan, including focused security for areas having direct contact with ships;
- Ships may have certain equipment onboard to help maintain or enhance the physical security of the ship;
  - Monitoring and controlling access;
  - Monitoring the activities of people and cargo;
  - Ensuring the security and availability of communications; and,
  - Completing a Declaration of Security signed by the FSO and SSO, which ensures that areas of security overlapping between the ship and facility are adequately addressed.

Vessels flagged by nations which are not IMO signatory are subject to special USCG vessel security boarding prior to entering port.

Security Credentialing

The TWIC program is a TSA and USCG initiative that will include issuance of a tamper-resistant biometric credential to maritime workers requiring unescorted access to secure areas of port facilities and vessels regulated under the MTSA. The TWIC program will minimize the potential for unauthorized handling of containers that contain hazardous materials and provide additional shoreside security at the Targa Stockton Terminal. In order to obtain a TWIC, an individual must successfully pass a security threat assessment conducted by Transportation Security Agency (TSA). This assessment will include a criminal history check and a citizenship or immigration status check of all applicants. The Port was required to be in compliance with the TWIC program in February of 2009.

7.14.3.5 U.S. Coast Guard

The primary responsibility of the USCG is to ensure the safety of vessel traffic in the SJDWSC and in coastal waters. The USCG maintains a facility at Rio Vista Station, approximately 30 miles northwest of the proposed Targa Stockton Terminal. The 11th USCG District provides

USCG support to the Port, including the proposed Targa project area. The USCG in cooperation with the Marine Exchange also operates the Vessel Traffic Service (VTS). This voluntary service is intended to enhance vessel safety in the main approaches to the Port.
The USCG determines emergency response time based on the distance that the USCG must travel to reach a given facility. An increase in vessel calls does not necessarily correlate to an increase in response times because adequate staffing levels will be maintained and although an increase in annual vessel calls will occur, daily calls are expected to remain the same.

7.14.3.6 Libraries

The Stockton-San Joaquin County Public Library creates an environment for connecting people and ideas by providing residents of all ages with resources to pursue their educational, civic, business and personal interests. Library resources and services are provided at the Cesar Chavez Central Library, three branches in Stockton, seven County branch libraries, a bookmobile, and a mobile family literacy unit. In addition, Library outreach efforts target infants, children and adults with a variety of volunteer-based literacy and reading enhancement programs. The proposed Targa project is located approximately 2.5 miles from the Stockton-San Joaquin Library as well as the Cesar Chavez Central Library. Several divisions compose the Stockton-San Joaquin County Public Library system: Administration, Public Services, and Technical Services.

The Library Department's Administration unit is responsible for establishing policies and goals; developing plans for library service delivery; evaluating library services and resources; determining library services appropriate to community needs; preparing the department's budget and monitoring expenditures; and recruiting, selecting, training and counseling staff. Administrative support functions include payroll, accounting, purchasing/ inventory; community outreach and public information, and delivery of mail and library materials throughout the City-County system.

The Library Department Public Services unit is comprised of staff at the Central Library, branch libraries, Bookmobile and literacy services, who provide direct service to the public. Public Service staff evaluate and select library materials; provide on-site reference and readers' advisory; retrieve and reshelf books and materials; loan materials to the public; borrow materials for the public from other libraries; manage borrowers' accounts; teach individuals and groups how to use the Library and its computerized catalog to locate materials; assist and instruct the public on use of the Internet and other electronic resources; operate the literacy programs; and conduct on-site and outreach programs to acquaint people of all ages with what the Library offers.

The Library Department Technical Services unit purchases and organizes the Library's collection and creates and maintains catalogs and databases so the materials can be located and used quickly and easily by the public and by staff. Unit activities include ordering and purchasing materials; accounting for purchases; cataloging, classifying and processing all book and non-book materials for the Library; maintaining the computerized catalog and all subsystems of the integrated computer system, including local databases; and providing support for all

personal computers, peripherals and software operated by staff. The proposed Targa project is located in north Stockton where only one library, the M.K. Troke branch library, serves. This branch is considered deficient in size with respect to the current population served (City of Stockton, 1990).

7.14.3.7 Solid Waste

The City of Stockton's Public Works Department is responsible for making sure that solid waste and recycling are properly carried out in the City. The City has negotiated contracts with private companies for solid waste collection services in designated municipal areas. The proposed Targa project is served by two service providers: Waste Management/Stockton Scavenger and Sunrise Sanitation. Stockton has a comprehensive waste collection system designed to reduce the amount of trash sent to California landfills. Using a color-coded three-cart system, the City encourages residents to divide their solid waste into three categories: recycling which includes all paper, bottles, cans, cardboard, plastic, and scrap metal; green and food waste which includes leaves, tree limbs, pruning, cut flowers and certain food wastes for collection; and regular "trash".

Most of the residential and some commercial and industrial wastes from Stockton are disposed of at the Austin Road Landfill which possesses a total estimated capacity of 51,040,000 cubic yards and currently holds 27,340,000 cubic yards of waste (Cal recycle 2012).

7.14.3.8 Medical Facilities

There are three major medical facilities that serve the Stockton area. They are Dameron Hospital, Kaiser Permanente Medical Offices, and St. Joseph's Medical Center. Both Dameron and St. Joseph's have in-patient hospital and 24-hour emergency room facilities. Kaiser has no in-patient facilities but performs outpatient surgeries and has 12-hour ambulatory surgery center. Kaiser is considering establishing in-patient facilities and 24-hour ambulatory capabilities.

7.14.3.9 Schools

The Stockton Unified School District includes seven trustee areas served by four high schools, six middle schools, 32 elementary schools, and several other miscellaneous schools (Stockton Unified School District, 2001). Several institutions of higher education are located within the Stockton area, including University of Pacific, California State University System (CSUS) Stockton campus, San Joaquin Delta College, Humphrey's College and School of Law, and an assortment of vocational training schools. There are no schools within one mile of the proposed Targa project; the nearest schools are Victory Elementary School 1.4 miles away and George Washington Elementary School 1.2 miles away.

7.14.3.10 Parks and Recreation

The Parks and Recreation Department plans, develops, programs, operates and maintains all of the City's parks landscape districts, the City street tree and landscape medians programs and recreation facilities and programs including the Stockton Arts Commission and Public Art Programs. The department is organized to serve age levels from kindergarten to senior citizens,

and has programs and services for the handicapped, non-English speaking, economically disadvantaged teens, and at-risk youth and young adults. The nearest parks to the proposed lease area are Louis Park, ¾ of a mile north northwest of the proposed lease area and Boggs Tract Park, slightly more than 1 mile due east of the proposed lease area.

7.14.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to Public Services significant if the proposed Targa project would:

- result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impact, in order to maintain acceptable service ratios for any of the public services:
  - Fire protection
  - Police protection
  - Schools
  - Parks
  - Other public facilities

7.14.5 Impacts and Mitigation Measures

Impacts of the proposed Targa project related to public services are addressed in Section 3.13 (Public Services) of the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR). The proposed Targa project is within the scope of the public services analysis presented in the 2006 Pacific Ethanol EIR, and there are no changed circumstances since the preparation of this document that require reanalysis of cumulative impacts. The 2006 Pacific Ethanol EIR, Initial Study found that the project would not result in substantial adverse physical impacts to existing public service facilities or require a new or remodeled facility for schools, parks, fire and police protection, or other public facilities.

7.14.5.1 2006 Pacific Ethanol EIR Impacts

As discussed in the Pacific Ethanol Project Initial Study, there are no impacts related to public services.

7.14.5.2 2006 Pacific Ethanol EIR Mitigation Measures

No mitigation measures were recommended as no impacts were identified.

7.14.5.3 Targa Stockton Terminal Project-specific Impacts

The proposed Targa project would not increase the level of density or intensity of services planned for in the Stockton Port District and industrial area. Impacts to law enforcement, fire protection, schools, parks, and other public services associated with the proposed Targa project

were anticipated and disclosed in the 2006 Pacific Ethanol EIR. Impacts to the solid waste disposal project may arise during the construction of the proposed Targa project. Disposal of solid waste generated by construction activities such as removal of asphalt, concrete, and soil from excavations must be carried out in accordance with the City's Reduction, Recycling, and Reuse Element (RRCE). Some construction materials are used at landfills as cover; however, construction waste is not anticipated for disposal at a landfill. Recycling of construction waste would be conducted at FTG Construction Materials, Inc. in the Stockton area. This facility accepts concrete, asphalt, and uncontaminated soil. The City requirements for disposal of construction waste are normally included in contract special provisions for each construction project. These provisions require the contractor to recycle materials. The project would therefore, have less than significant impacts related to solid waste disposal.

7.14.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

No mitigation measures were recommended as no impacts were identified.

7.14.6 Public Services and Facilities Initial Study Responses

Table 7.14-1: Public Services and Facilities Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impact, in order to maintain acceptable service ratios for any of the public services:					
a) Fire Protection?	☐	☐	☐	☑	☐
b) Police Protection?	☐	☐	☐	☑	☐
c) Schools?	☐	☐	☐	☑	☐

d) Parks?	☐	☐	☐	☑	☐
e) Other Public Facilities?	☐	☐	☐	☑	☐

7.14.7 Response to Questions

7.14.7.1 Provision of New or Physically Altered Government Facilities or Need for New Government Facilities: Less Than Significant Impact

The project would not result in a need for additional public services. Approximately 75 to 100 construction personnel would be employed during peak construction activities, with construction lasting up to 14 months. The operational phase of the proposed Targa Stockton Terminal would employ approximately 35 workers and would not have an impact on public facilities or services. Inter-governmental cooperative agreements would fully mitigate any direct or cumulative impacts on public services and facilities. In addition, construction phasing and traffic control plans would mitigate any impacts on emergency service, school, and park accessibility to the surrounding community.

The Stockton Police Department is not the primary police service provider in the Port area and primarily provides support to the Port Police under special circumstances, as described above. The Port and the Targa Stockton Terminal might be recognized as a site with heightened risk for terrorism, which is a special circumstance under which the Stockton Police Department would respond. Therefore, protocols have been implemented which require a security plan and strict procedures for each terminal operator. The proposed Targa project would include development and approval of a security plan. The security plan would be prepared in accordance with the Maritime Transportation Security Act of 2002 (46 Code of Federal Regulations [CFR] 701) and 33 CFR 101-106. The plan would be approved by the USCG in collaboration with local police authorities (Port and City). In order to maintain security, the specifics of the plans would not be released to the public. The security plan's design would include local and remote monitoring systems, equipment systems, Targa personnel training programs, and emergency response procedures. All Targa Stockton Terminal facilities would be within a perimeter security barrier/fence around the sites (Berth #9 and Tank Farm). These strict individual security parameters for the Targa Stockton Terminal will contribute considerably to managing potential crime and work in concert with local police authorities. With the implementation of the security measures described above, the proposed Targa project would result in a minimal increased likelihood that a special circumstance situation might occur (i.e., terrorism). This would result in a negligible increase in demand on the Port Police and Stockton Police Department because such situations would be rare or would not occur at all.

Proposed terminal operations would result in increased vessel traffic in the proposed Targa project area; however, the corresponding increase in demands for law enforcement would be infrequent because the proposed Targa project includes basic security equipment, including perimeter security fencing, 24-hour guard service, cameras with local and remote monitoring and control, and a perimeter security system with remote monitoring and alarm notification.

Specifically, the proposed Targa project would not burden the Port Police such that they would not be able to maintain an adequate level of service.

Existing response times provided by the USCG, Stockton Police Department, and Port Police are considered adequate. Proposed Targa project construction would have the potential to reduce response times where traffic detours or congestion results, thereby increasing law enforcement response times. However, construction contractors may be required to coordinate with Stockton Police Department and Port Police to establish alternative response routes, ensuring continuous law enforcement access to surrounding areas. Although Berth #9 operations would result in a minimal increase in calls to the Port Police and/or Stockton Police Department, provisions for security features including perimeter security fencing, 24-hour guard service, cameras with local and remote monitoring and control, a perimeter security system with remote monitoring and alarm notification, and additional security features mandated by the MTSA would reduce the demand for law enforcement. The proposed Targa project would be located within the same operating distance of other facilities served by the USCG and would therefore not increase emergency response times. Additionally, at the maximum capacity level of operations (reached in 2016), the proposed Targa project would result in an increase of 365 vessel calls per year, which would not reduce available USCG resources or increase response times due to adequate staffing levels and the fact that, although vessel calls will increase annually, daily calls are expected to remain the same. Accordingly, the proposed Targa project would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, Stockton Police Department, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects, and impacts would be less than significant. No mitigation is required.

7.15 RECREATION

This section addresses the potential impacts that the proposed Targa project would have on the recreation needs of the City. This section discusses potential impacts to recreation resources and open space in the vicinity of the proposed Targa project. As a basis for evaluation, the affected environment section summarizes existing conditions related to site characteristics and recreation providers.

7.15.1 Background

Recreation planning is a process that relates people's leisure time and activities to particular spaces. The responsibility for providing leisure opportunities is normally shared between the private sector and the public sector. Community recreation programs in Stockton cover a wide range of interests and activities including after school programs, community centers, concerts in the park, day camps, instruction classes, sports programs, teen activities, and volunteer opportunities.

Parks and other recreation facilities in Stockton are under the jurisdiction of the Stockton Parks and Recreation Commission and Stockton Parks and Recreation Department. Over 292,000 citizens residing in the incorporated and unincorporated areas of San Joaquin County are served by this commission.

7.15.2 Methodology

Information for this section was obtained from the City of Stockton 2007 General Plan Background Report and from Google maps. Site inspection of the project area confirmed the existing conditions of the proposed lease area and the surrounding land uses.

7.15.3 Environmental Setting

7.15.3.1 Regional Overview

The City of Stockton operates and maintains a total of 60 parks that range in size from 2 acres to 74 acres. Recreational activities can also be found on the waterways in the region which include, the Delta; natural rivers and creeks; and manmade canals, channels, sloughs and ditches.

7.15.3.2 Study Area Setting

There are several parks and recreational facilities in the vicinity of the proposed lease area. The approximate locations are:

- Louis Park, 0.75 mile north-northwest of the proposed terminalling and storage site (and 0.50 mile northwest of Berth #9);
- Boggs Tract Park, 1 mile east of the proposed terminalling and storage site;

- Van Buskirk Municipal Park (golf course), 1.15 miles southeast of the proposed terminalling and storage site;

- Stockton Rod and Gun Club, 0.75 mile north-northwest of the proposed terminalling and storage site (and 0.50 mile northwest of Berth #9); and

- All Star Sports (indoor batting cages), 0.75 mile north-northeast of the proposed terminalling and storage site (and 0.25 mile northwest of Berth #9).

The channel to the south and northwest side of the proposed lease area is used by recreational fishermen. The San Joaquin River is also used for recreational purposes. *See Figure* 7.15-1: Neighborhood Parks & Recreation Areas Map, which depicts the locations of recreational facilities relative to the proposed lease area.

7.15.4 Standards of Significance

The environmental analysis in the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR) considered an impact to recreation significant if the project would:

- increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and/or

- include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

7.15.5 Impacts and Mitigation Measures

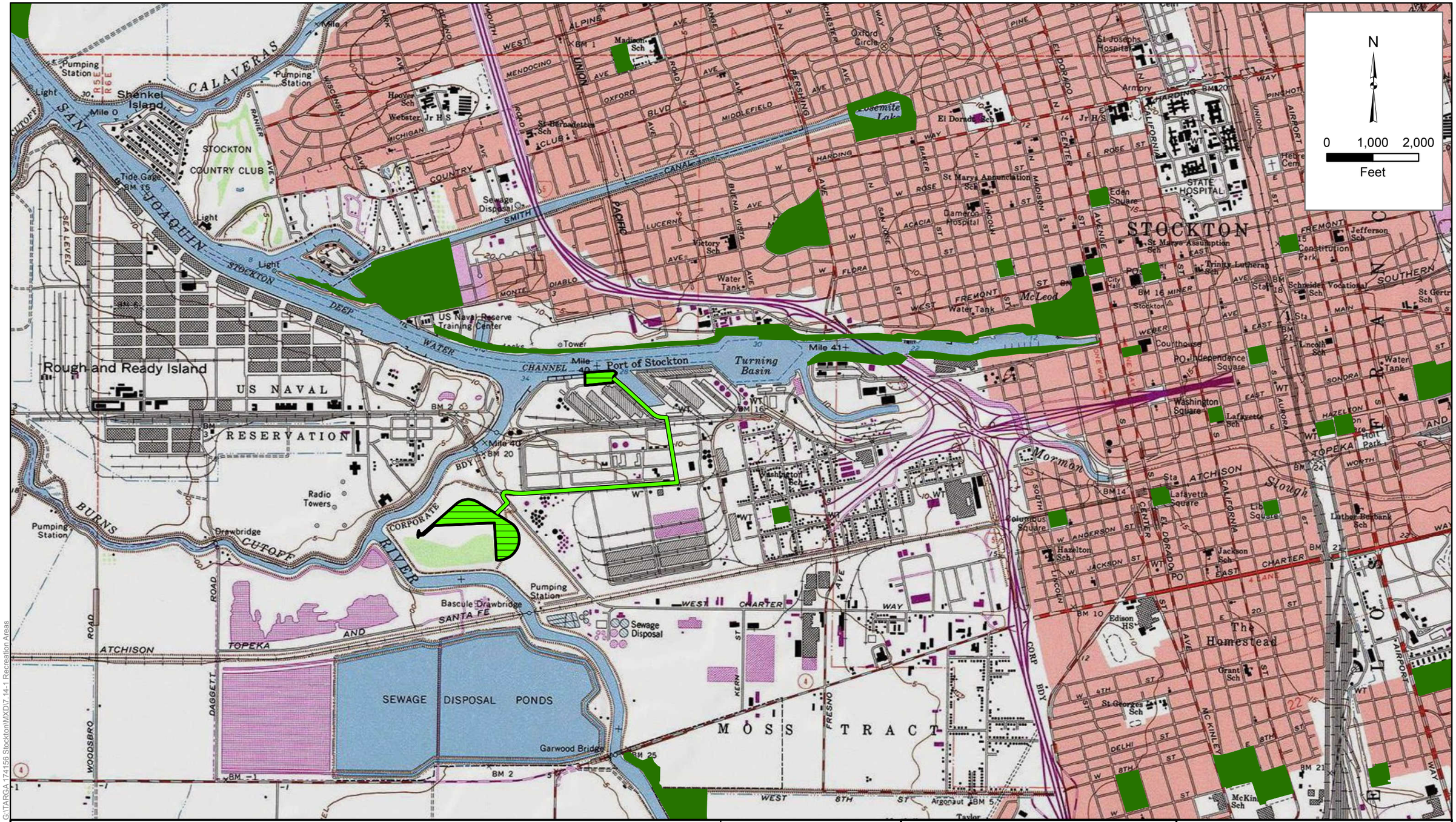
Impacts of the project related to recreation are addressed in Section 3.14: Recreation of the 2006 Pacific Ethanol EIR. The proposed Targa project is within the scope of the recreation analysis presented in the 2006 Pacific Ethanol EIR and there are no changes in circumstances since the preparation of these documents that require reanalysis of cumulative impacts. As discussed in the Initial Study for the 2006 Pacific Ethanol EIR, the project would have no impact on recreation.

7.15.5.1 2006 Pacific Ethanol EIR Impacts

As discussed in the Pacific Ethanol Project Initial Study, there are no impacts related to recreation.

7.15.5.2 2006 Pacific Ethanol EIR Mitigation Measures

No mitigation measures were recommended as no impacts were identified.



G:\TARGA 174156 Stockton\MXD\7.14-1 Recreation Areas

Legend

- Project Site TARGA Terminal
- Parks and Recreation

RECREATIONAL AREAS MAP		TARGA
DATE: Nov 17, 2011	SCALE: 1:24,000	FACILITY: TARGA TERMINAL STOCKTON, CALIFORNIA
BY:	FIGURE: 7.15-1	

7.15.5.3 Targa Stockton Terminal Project-specific Impacts

The proposed Targa project and associated pipeline facilities would have no impact on recreation.

7.15.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

No mitigation measures have been recommended as no impacts have been identified.

7.15.6 Recreation Initial Study Responses

Table 7.15-1: Recreation Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☐	☑

7.15.7 Responses to Initial Study Questions

7.15.7.1 Use of Parks and Recreational Facilities: No Impact

The project would not increase the use of existing neighborhood and regional parks or other recreational facilities (2006 Pacific Ethanol EIR, page 3-82). Therefore, there would be no impact.

7.15.7.2 Expansion of Recreational Facilities: No Impact

The project does not include recreational facilities nor does it require the construction or expansion of recreational facilities (2006 Pacific Ethanol EIR, page 3-82). Therefore, there would be no impact.

7.16 TRANSPORTATION/TRAFFIC

This section describes the existing land and marine transportation systems and the project's potential effects on transportation and existing traffic that may occur with implementation of the proposed Targa project. This section presents information on traffic and transportation as required by CEQA regulations. This section contains information on the existing transportation system together with a discussion of the potential effects of the proposed Targa project.

7.16.1 Background

7.16.1.1 Regulatory Context

All applicable laws, ordinances, regulations, and standards and their conformance measures are discussed below. Regulations, analysis methodologies, and transportation/circulation policies used to analyze the proposed Targa project impacts were taken from the following agencies and their applicable documents. Table 7.16-1 summarizes this information and provides agency contacts.

Federal Regulations

The Hazardous Materials Transportation Act of 1974, 49 Code of Federal Regulations (CFR) 397.9, is a federal law applicable to the proposed Targa project. It directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials. There are no specific conformance measures necessary for this law.

Several federal regulations provide guidance related to marine transportation, and the transportation of oils and hazardous materials, in particular, including the following:

- Oil Pollution Act 1990 (33 U.S.C. §2701 *et. seq.)*: Provides responsibility for vessels/facilities that discharge oil
- Clean Water Act (33 USC § 1271 *et. Seq.)*: Regulates Waters of the United States; includes discharges to and navigation within
- Ports and Waterways Safety Act of 1972 (33 USC § 1221-1236): Provides U.S. Coast Guard authority to establish vessel traffic service schemes
- The Act to Prevent Pollution from Ships 1980 (33 U.S.C. §1905-1915): Regulates ship discharges pursuant to United States signatory of MARPOL 78
- 33 CFR 3.55-20: Regulates the San Francisco Bar Marine Inspection Zone and Captain of the Port Zone
- 33 CFR 126: Regulates handling of dangerous cargo at a dock
- 46 CFR 150: Provides the U.S. Coast Guard the authority to regulate the shipping of bulk containers
- 46 USC § 7701: Regulates personnel actions related to marine transporters (i.e., licensed mariners)
- 46 USC § 6101: Provision relating to marine casualties

Table 7.16-1: Laws, Ordinances, Regulations, and Standards (LORS)

LORS	Document and Page	Applicability	Agency
Federal			
Transport of Hazardous Materials	Hazardous Materials Transportation Act of 1974	Requires transporters to adhere to established regulations.	U.S. Department of Transportation
State			
Transport oversized or excessive loads over State highways	California Vehicle Code Section 35780	Requires permit to transport oversized or excessive loads over State highways. Enforced by the California Highway Patrol.	California Department of Transportation (North Region Permitting Department)
Transport hazardous materials on State or interstate highways	California Vehicle Code Section 31303(b)	Requires that the transportation of hazardous materials be on State or interstate highways that offer the shortest overall transit time possible.	California Highway Patrol
Transport hazardous materials on State or interstate highways	California Vehicle Code Section 31303(c)	Requires that the transportation of hazardous materials avoid, whenever practicable, places where crowds are assembled, and residential districts.	California Highway Patrol
Licensing of hazardous materials transporters	California Vehicle Code Section 32000.5	Requires that transporters of hazardous materials contact the California Highway Patrol to apply for and receive a Hazardous Material Transportation License.	California Highway Patrol
Encroachment permit (crude oil pipeline)	California Streets and Highway Code, Division 2 Chapter 5.5 Sections 1460-1470	Requires an encroachment permit to make an opening or excavation for any purpose in a roadway.	City of Stockton Public Works Department of Engineering

- Annex I of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78): Governs the movement of oil and specifies tanker construction standards and equipment requirements

- Section 10 of the Rivers and Harbors Act (33 USC 403): Provides the U.S. Army Corps of Engineers the authority to regulate construction within "navigable waters" of the United States

State Regulations

State laws that apply to the proposed Targa project include the following:

- California Vehicle Code Section 35780: Requires approval for a permit to transport oversized or excessive loads over State highways. The project would conform to Section 35780 by requiring that shippers obtain a Single Trip Transportation Permit for oversized loads, as required by the California Department of Transportation (Caltrans), for each vehicle.

- California Vehicle Code Section 31303(b): Requires that the transportation of hazardous materials occur on state or interstate highways offering the shortest overall transit time possible. The proposed Targa project would conform to Section 31303(b) by requiring that shippers of hazardous materials use the shortest route possible to and from the lease area.

- California Vehicle Code Section 31303(c): Requires that the transporters of hazardous materials avoid, whenever practicable, congested thoroughfares, places where crowds are assembled, and residential districts. The proposed Targa project would conform to Section 31303(c) by requiring transporters to use routes that avoid these areas, if possible.

- California Vehicle Code Section 32000.5: Requires that shippers of hazardous materials must contact the California Highway Patrol to apply for and receive a Hazardous Material Transportation License. The proposed Targa project would conform to Section 32000.5 by requiring hazardous materials transporters to be licensed when transporting to and from thelease area.

- California State Planning Law, Government Code Section 65302: Requires each city and county to adopt a general plan consisting of seven mandatory elements to guide its physical development. Section 65302 (b) requires that a circulation (transportation) element be one of the mandatory elements. The scope of a circulation element consists of the "general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan." Compliance with this section is described below.

- Lempert-Keane-Seastrand Oil Spill Prevention and Response Act of 1990 (SB 2040): Covers all aspects of marine oil spill preventions; created Office of Spill Prevention and Response; gave the State Lands Commission certain authority over marine terminals.

- CA Government Code § 8670.17-24: Established Harbor Safety Committees

- CA Code of Regulations: A summary of CCR Title 14, Division 1, Subdivision 4, OSPR, Chapter 4 Vessel Requirements, Subchapter 1 follows. These regulations have specific requirements for tanker vessels, tug escort requirements, crew and supervisors requirements, tanker vessel equipment requirements, and tanker and tug(s) matching criteria, as described by the Tank Vessel Escort Program for the SJDWSC.

Local Regulations

The transportation element of the City of Stockton 2035 General Plan sets forth goals, policies, and implementation programs related to traffic issues in the City of Stockton. The proposed Targa project would be consistent with the City's General Plan Transportation Element goals and policies due to the minimal amounts of construction and operational traffic associated with the proposed Targa project. Furthermore, the proposed Targa project would implement appropriate mitigation measures during construction to ensure that safe, reliable transportation is maintained within the City for automobiles as well as bicycle and pedestrian traffic.

The *City of Stockton Transportation Impact Analysis Guidelines,* Chapter 8 of the *Stockton General Plan Goals and Policies Report* addresses transportation and circulation standards. According to Section 8.2, TC-2.1, the City of Stockton Level of Service Standard is "D." Exceptions are given for 17 corridors, which allow LOS to degrade below a "D" such as State Route 4, a potential access route to the proposed lease area, which is provided the exception of LOS "F."

In addition to general plan requirements, the California Streets and Highways Code, Division 2, Chapter 5.5, Sections 1460-1470, requires an encroachment permit if there is an opening or excavation for any purpose in any City streets. The project would conform to Section 1460-1470 by obtaining an encroachment permit from the City of Stockton Public Works Department and the Central California Traction Company for boring under the railroad and major arterials prior to all pipeline construction.

7.16.1.2 Required Permits and Approvals

City of Stockton Public Works Department Encroachment Permit for all work within public rights-of-way (permission would additionally be sought from California Traction Company for any borings that may encroach upon their property).

7.16.2 Methodology

7.16.2.1 Ground Transportation

To assess the potential of the proposed Targa project-related traffic to impact local traffic congestion, the number of project-related trips through each key intersection and the intersection LOS were estimated for conditions before project construction, during construction, and during project operation. The trip-estimating methodology is based on the Planning Method in the *Highway Capacity Manual 2000*, which provides a general discussion of intersection operations that is used to define the overall LOS at a signalized intersection, given existing traffic volumes and projected project-related traffic. The Planning Method calculates a "sum of critical volumes" for the critical traffic-control phases of an intersection (phases for which there might be significant delay or obstruction), and a corresponding LOS. The critical volume is the volume of traffic that would cause a significant conflict with opposing traffic. This occurs where left-turning traffic obstructs through traffic at an intersection. The critical volume for an intersection as a whole is calculated as the number of vehicles turning left plus the number of through vehicles at a given intersection, for each flow direction possible at that intersection.

For this analysis, TRC collected Peak Hour critical turning movement counts on August 9 and 10, 2011 at intersections that might be impacted by the proposed Targa project. Figure 7.15-1 shows the intersections that were analyzed. The City of Stockton and Caltrans District 10 provided information about the various combinations of signal phases (such as left-turn permissive, left-turn protected, etc.) for each key signalized intersection that was analyzed. Project-related impacts (e.g., LOS impacts) were not evaluated by roadway segment because current Average Daily Traffic (ADT) data was not available for several key roadways.

The impact analysis assumes "average or better" conditions of geometry and traffic (i.e., vehicle headways, lane widths, truck percentages, effects of parking and pedestrians, etc.). After observing the lease area and based on discussions with the City and Caltrans District 10, the proposed Targa project area's geometry and traffic were deemed "average." The procedure does not explicitly deal with signal timing and does not necessarily relate to the amount of vehicle delay. The procedure assumes a random arrival of vehicles on all approaches (rather than the vehicle platoons that are usually created by coordinated signal systems).

In cases where signal-protected, left-turn phases are not provided at the intersection (i.e., a permissive left-turn intersection), the "filtering" left-turn capacity for permissive left-turn movements during the green-signal phase is calculated as follows:

Capacity = (1200 - Vo) x G/C

where

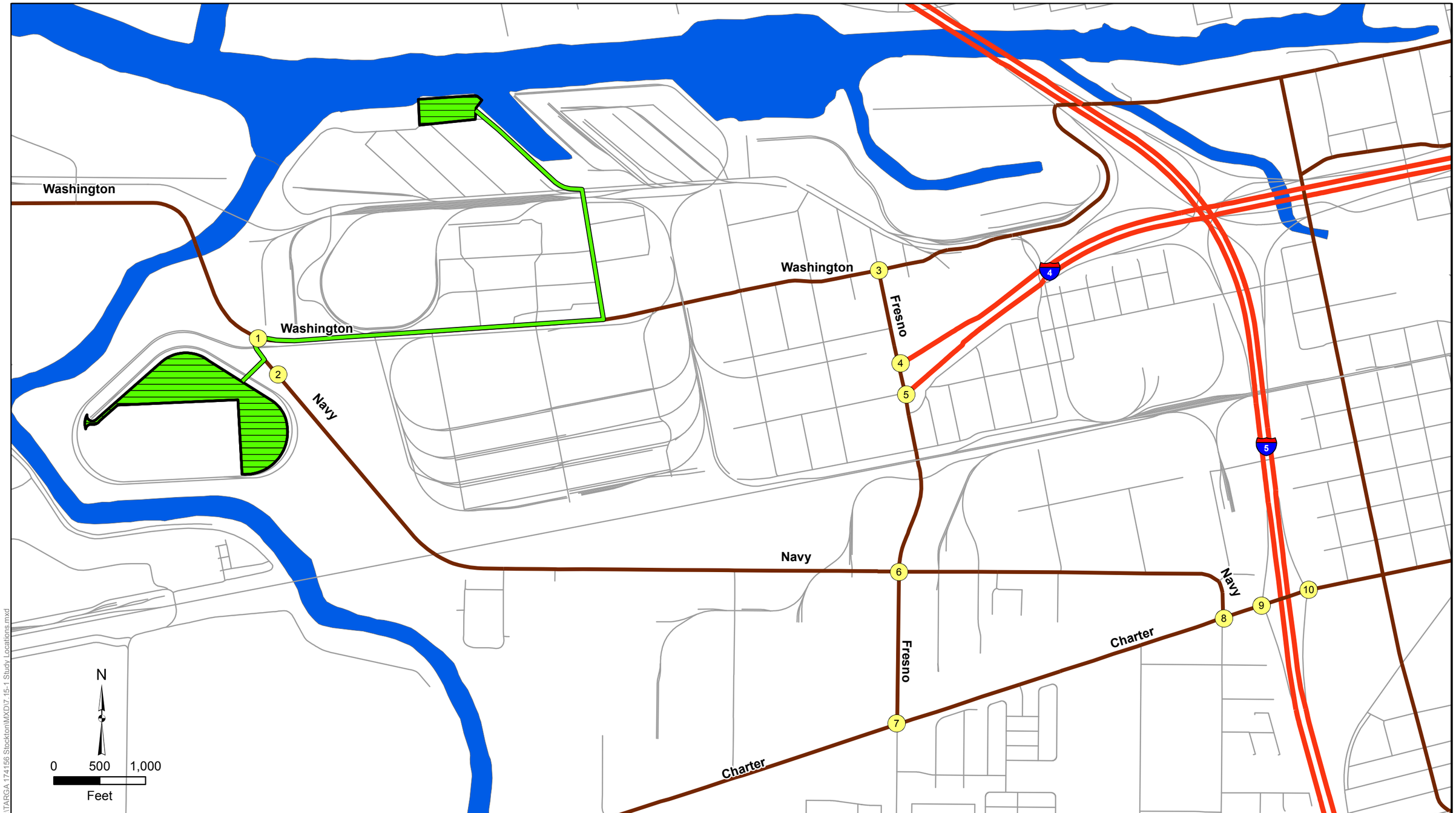
Capacity = Filtering left-turn capacity in vehicles per hour (vph) for permissive left-turn movements during the green light

Vo = Volume (vph) of opposing traffic, including through and right-turning vehicles

G/C = Portion of light cycle during which the left turns and the opposing traffic have a green light (G = green time, C = total cycle time)

On single-lane approaches, estimates of the critical volumes and protected/permissive phasing are sometimes problematic due to the variable permissive left-turn capacity and the sometimes-varying lane use during a cycle.

On multi-lane approaches with permissive left-turn phasing, through and right-turn vehicles generally tend to shift to the right lane(s) to avoid being blocked by same-direction left-turn vehicles that are waiting for gaps in the opposing traffic stream. This shift is accounted for in the methodology by a factor that adjusts the proportion of vehicles blocked or stopped at the intersection.



Legend

- TARGA terminal and berth
- TARGA product pipeline
- Study Intersections
- Highway
- Major Road

STUDY LOCATIONS

DATE: Nov 17, 2011	SCALE: 1:12,000
BY:	FIGURE: 7.16-1

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

At narrow, single-lane approaches, however, one or a few left-turn vehicles may block the entire approach. Thus, the critical volume for a single-lane approach would depend on the width of the approach, the presence and location of on-street parking, the length of the green-light phase, the opposing traffic volume, and the proportion of left-turn vehicles in the traffic stream. For this analysis, it was assumed that all intersections with a single-lane approach would be wide enough to allow right-hand turns at the same time as left-hand turns.

The lowest critical volume (best LOS) for a single-lane approach is calculated as the highest combination of the through and right-turn volumes summed with the opposing left-turn volume. The highest critical volume (worst LOS) for a single-lane approach is calculated as the total of the approach volumes for both approaches. Separate right-turn phases are not considered in the critical volume calculation since right-turn movements in exclusive right turn-lanes are seldom a critical movement (especially where right turns on red are allowed).

A capacity analysis is necessary to evaluate the adequacy of traffic accommodating infrastructure elements such as lanes relative to the demand for such elements. An LOS analysis is one of the most commonly used tools to evaluate capacity.

According to *Traffic and Highway Engineering* (1988), LOS is defined as "a qualitative measure of the operating conditions within a traffic system and how these conditions are perceived by drivers and passengers."

According to the *Highway Capacity Manual* (2000) by the Transportation Research Board, LOS ratings are assigned as a function of control delay, as shown in Table 7.16-2. Table 7.16-2 shows critical average delay thresholds for each LOS, A through F (the average delay below which a given intersection remains at a given LOS). To define the LOS of an intersection with two-phase control, for example, given actual hourly traffic counts for the daily peak period of travel, one would add the left-turn volume to the opposing direction's through volume for all applicable travel directions at that intersection (for example, east-west, west-east, north-south, south-north). If the resulting sum of critical volumes produces an average delay of 10 seconds or less, the LOS would be A. If a project were to add a volume of traffic to an intersection that would increase this sum of critical volumes and thus the average delay to more than 10 seconds, it would cause a change in LOS from A to B.

Table 7.16-2: Intersection Level of Service (LOS) Definitions

Rating	Un-Signalized		Signalized	
	Delay (sec/veh)	Description	Delay (sec/veh)	Description
A	0 to 10	Long, frequent gaps	0 to 10	Some slowing on green, but most vehicles do not stop
B	10 to 15	Shorter, less frequent gaps, no more than one vehicle in queue	10 to 20	Some vehicles stop, but the majority do not stop
C	15 to 25	Less frequent gaps and typically approximately two vehicles in queue	20 to 35	More vehicles stop, but many still pass through without stopping
D	25 to 35	Less frequent gaps and typically two or three vehicles in queue	35 to 55	Most vehicles stop
E	35 to 50	Less frequent gaps and typically three or more vehicles in queue	55 to 80	Almost all vehicles stop, but are able to clear the intersection within one cycle
F	50+	Excessive delays waiting for suitable gaps, longer queues	80+	All vehicles stop and some may not be able to clear the intersection within one cycle

Source: Highway Capacity Manual, 2000

Based upon the proposed Targa project construction and operations, it was determined that the Peak AM traffic and Peak PM traffic periods would be the appropriate study periods. For these Peak Hours, the following three scenarios were evaluated:

- **Existing:** Traffic counts and field observations of existing conditions were conducted and analyses were performed of the existing operating conditions in the area.
- **Existing plus construction:** This analysis incorporates the existing conditions as a background in addition to the projected traffic volumes during project construction.
- **Existing plus operation:** This analysis incorporates the traffic projected during operation of the facility in addition to the existing traffic as background traffic.

For this analysis, the traffic generated by the proposed Targa project in the study area during construction and operation was assigned to the surrounding street system for a hypothetical return commute. The resulting trip numbers were then added to the existing critical volumes (based on Critical Turning Movement Counts of August 2011) for each key intersection and compared with the LOS thresholds listed in Table 7.16-2.

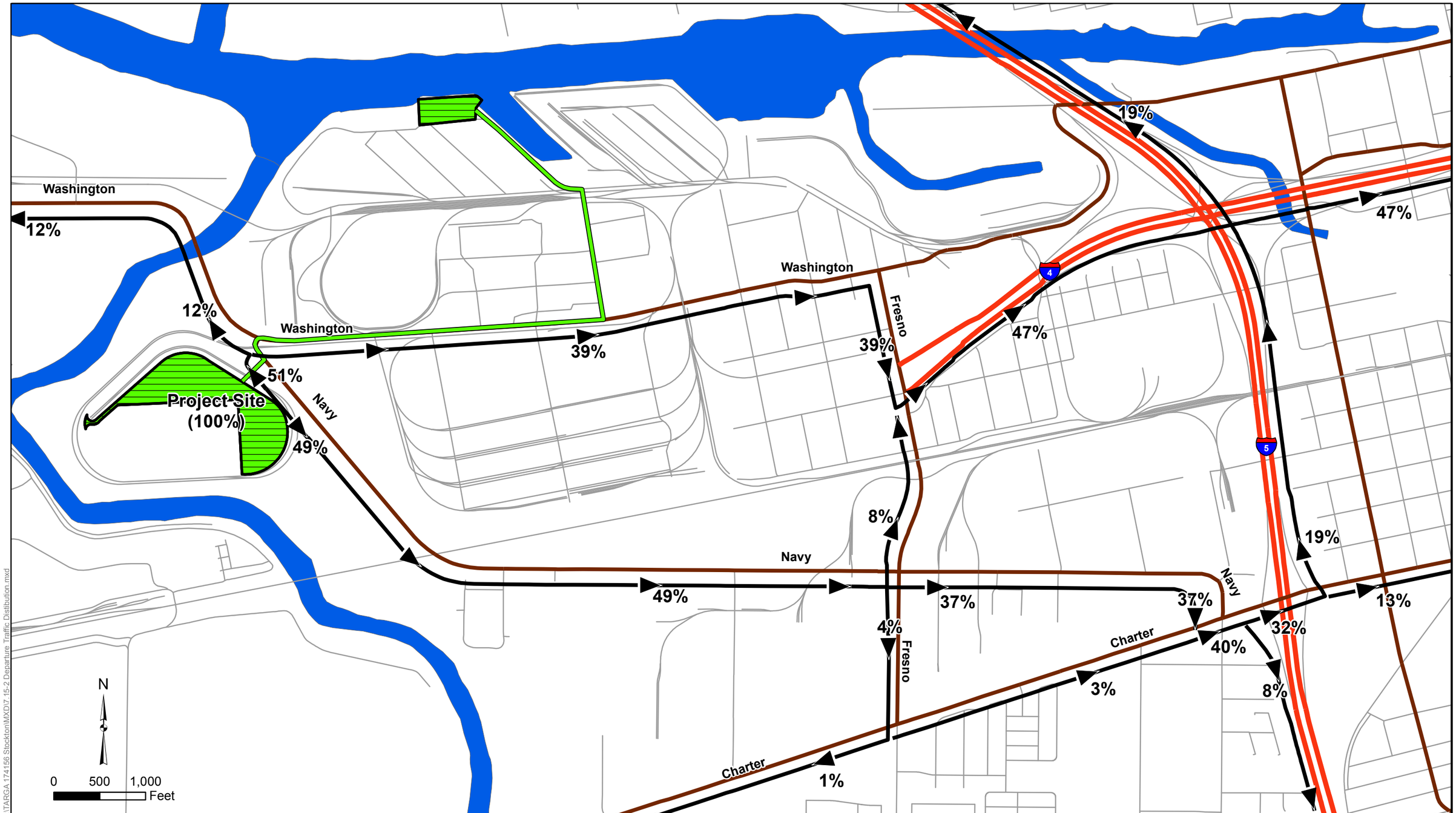
The key analysis assumptions were as follows:

- No public transit, to the lease area.
- The normal construction workday would begin at 7 a.m. and ends at 3:30 p.m. (The work site, however, would be active between 6 a.m. and 6 p.m.).
- All construction traffic would arrive during the Peak AM and PM traffic periods.

Project trip generation was estimated for construction traffic and operations traffic based on Targa's past experience in constructing and operating terminals and storage facilities. The ability of any roadway network to accommodate anticipated traffic volumes is measured by comparing Peak Hour Traffic Volumes to roadway capacities. Thus, it is essential to determine the hourly traffic volumes to be generated by the proposed Targa project and add them to the existing traffic volumes. It is estimated that during the construction phase of the proposed Targa project, the Peak AM Hour trips generated would be 75 new vehicles entering the proposed lease area, while during the construction Peak PM Hour, there would be 75 new vehicles exiting the proposed lease area.

During operations of the proposed Targa project, it is estimated that there would be 17 new vehicles entering the proposed lease area during the Peak AM Hour and 17 new vehicles exiting the proposed lease area during the Peak PM Hour.

Based on an analysis of the local grid system, workers commuting from outside the local area, and historical traffic data from the nearby petroleum terminals (i.e., NuStar), it was assumed that departure traffic from the proposed lease area would split 51 percent heading north on Navy Drive, and 49 percent heading south on Navy Drive (*See Figure* 7.16-2: Departure Traffic Distribution). Arriving traffic was also assumed to approach at the same percentages as the departure traffic (*See Figure* 7.16-3: Arrival Traffic Distribution). It is also assumed that much of the construction workforce could arrive from outside the immediate area and would thus access State Route 4 and Interstate 5 to disperse through the freeway system. Synchro software traffic model outputs with these assumptions are provided in Appendix G.

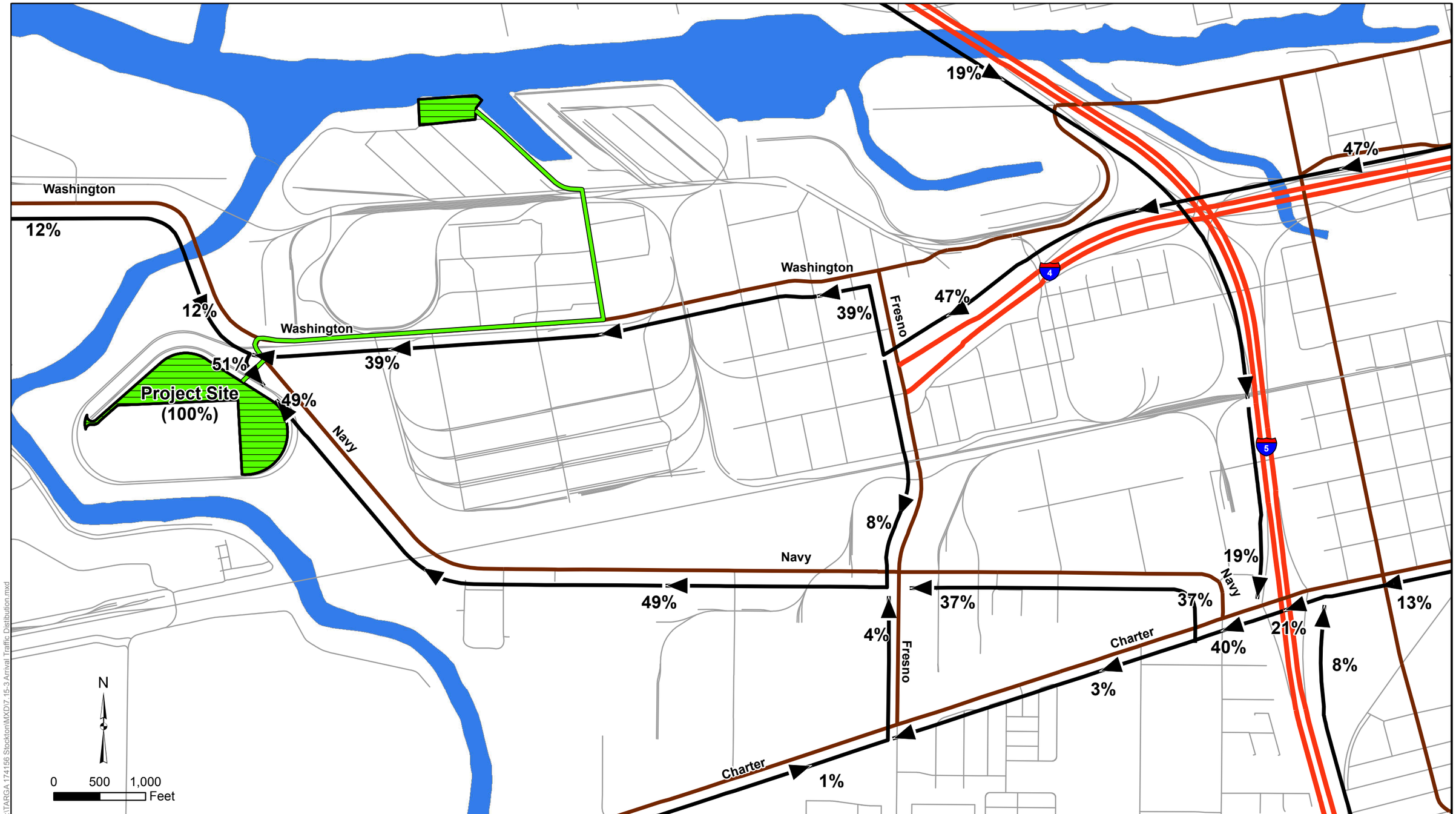


G:\TARGA 174156 Stockton\MXD\7.15-2 Departure Traffic Distribution.mxd

Legend

- TARGA terminal and berth
- TARGA product pipeline
- Departure Routes
- Highway
- Major Road

DEPARTURE TRAFFIC DISTRIBUTION		TARGA
DATE: Nov 17, 2011	SCALE: 1:12,000	FACILITY: TARGA TERMINAL STOCKTON, CALIFORNIA
BY:	FIGURE: 7.16-2	



G:\TARGA 174156 Stockton\MXD\7.15-3 Arrival Traffic Distribution.mxd

Legend

- TARGA terminal and berth
- TARGA product pipeline
- Arrival Routes
- Highway
- Major Road

ARRIVAL TRAFFIC DISTRIBUTION

DATE: Nov 17, 2011	SCALE: 1:12,000
BY:	FIGURE: 7.16-3

TARGA

FACILITY: TARGA TERMINAL STOCKTON, CALIFORNIA

7.16.2.2 Marine Transportation

The analysis considers the specific type and number of vessels that currently visit the Port and pass by Berth #9, and evaluates the number and characteristics of tankers and barges that would be calling at the proposed Targa Stockton Terminal after implementation of the proposed Targa project. Specific design features of the proposed Targa project, and the historical accident record for similar terminals at other ports, are evaluated. Information regarding potential hazards during vessel approaches and departures is evaluated based on historical data, interviews with relevant Port personnel, and information available from the Port Pilots.

7.16.3 Environmental Setting

7.16.3.1 Land Traffic and Transportation Conditions

Roadway System

The following are the key roadways in the vicinity of the proposed Targa project:

Navy Drive – Navy Drive traverses in an east/west direction, except in the vicinity of the site where it travels in a northwest/southeast direction. Navy Drive begins at Charter Way in the east and extends to Washington Street in the vicinity of the site, and consists of one lane per direction. Access to the site is provided along Navy Drive.

Washington Street – Washington Street traverses in an east/west direction and consists of one lane per direction.

Fresno Avenue – Fresno Avenue extends in a north/south direction and generally consists of one lane per direction with turning lanes at Navy Drive. Access to Interstate 5/State Route 4 is provided along Fresno Avenue.

Charter Way (State Route 4) – Charter Way traverses in an east/west direction and intersects with Fresno Avenue and Navy Drive. It also provides grade-separated access to Interstate 5. Charter Way generally consists of one lane per direction with a center two-way left-turn lane, and then widens in the vicinity of the Interstate 5 ramps.

Interstate 5 – Interstate 5 is the adjacent freeway servicing the area and traverses in a north/south direction. Interstate 5 is located to the east of the site.

Existing Traffic Volumes

Based upon discussions with the City traffic engineer, and after review of the arrival/departure distributions for the proposed Targa project construction and operations, the following traffic study locations were determined to have potential to be impacted by the proposed Targa project traffic generation:

- Washington Street and Navy Drive
- Washington Street and Fresno Avenue
- Fresno Avenue and State Route 4 off-ramp

- Fresno Avenue and State Route 4 on-ramp/West Hazelton Avenue
- Fresno Avenue and Navy Drive
- Fresno Avenue and Charter Way
- Charter Way and Navy Drive
- Charter Way and Interstate 5 southbound ramps
- Charter Way and Interstate 5 northbound ramps
- Navy Drive and site driveway

TRC traffic counters conducted manual-turning-movement traffic counts, of both automobile and truck traffic, from August 9 to 11, 2011 from generally 5 a.m. to 9 a.m. and from 2:30 p.m. to 7 p.m. at the traffic study intersection locations. In addition to the manual traffic counts, field observations were performed to determine roadway geometry, lane widths, traffic control, etc.

The existing Peak AM Hour traffic and Peak PM Hour traffic volumes for each of the traffic study intersections are illustrated on Figure 7.16-4: Existing Traffic Volumes.

Existing Intersection Operations

Traffic control for the traffic study intersections is illustrated on Figure 7.16-5: Intersection Traffic Control Operation.

Of the 10 study locations, the following seven are signalized:

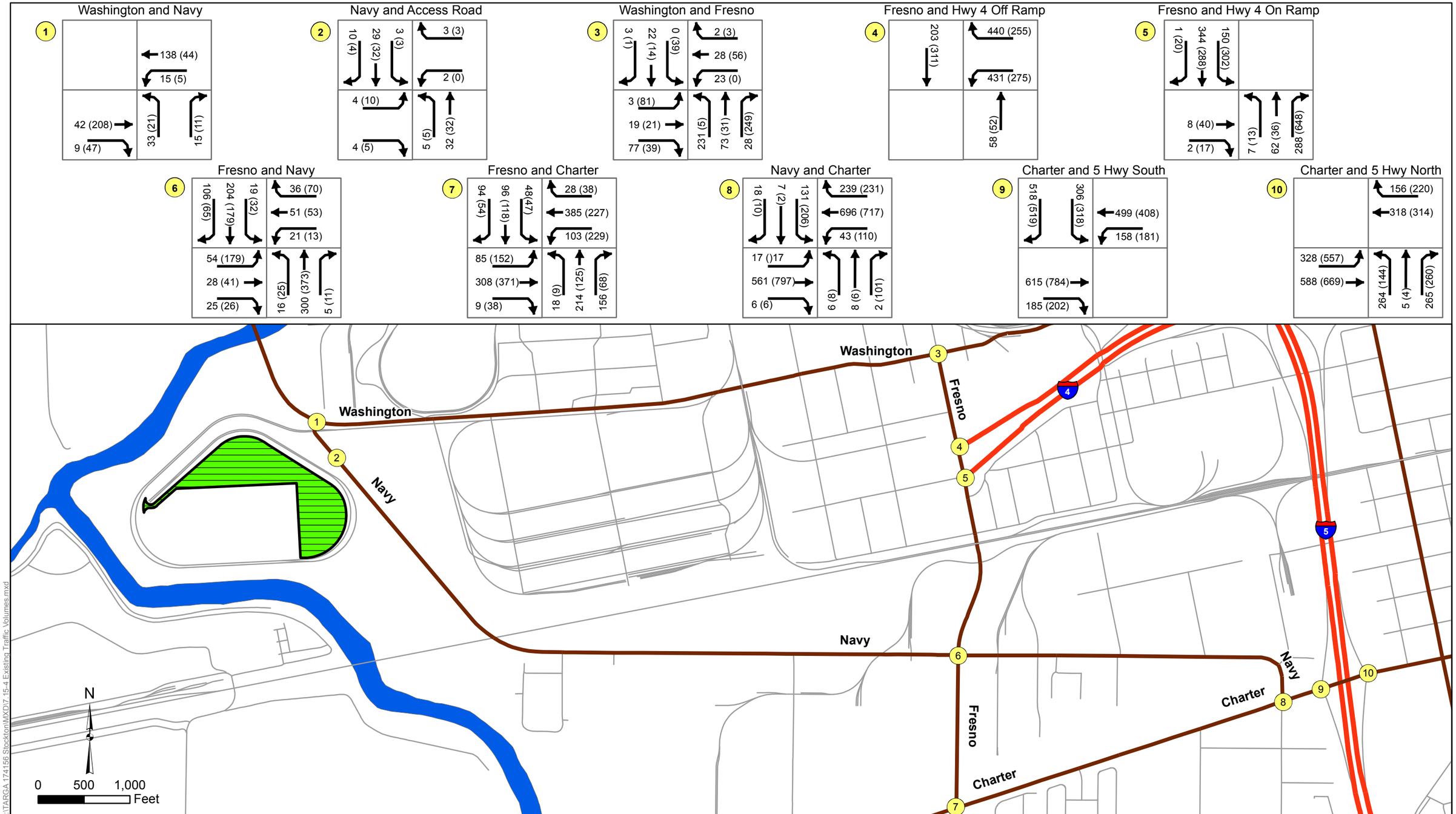
- Washington Street and Fresno Avenue
- Fresno Avenue and State Route 4 on-ramp/West Hazelton Avenue
- Fresno Avenue and Navy Drive
- Fresno Avenue and Charter Way
- Charter Way and Navy Drive
- Charter Way and Interstate 5 southbound ramps
- Charter Way and Interstate 5 northbound ramps

The following three locations operate unsignalized with the minor street under STOP control:

- Navy Drive and Washington Street
- Navy Drive and the site driveway
- Fresno Avenue and State Route 4 off-ramp

Site-generated Traffic Volumes

The site-generated traffic volumes previously described in Section 7.16-2 were distributed to the roadway network utilizing the arrival and departure distributions illustrated in Figure 7.16-2 Departure Traffic Distribution and Figure 7.16-3 Arrival Traffic Distribution. The resulting proposed Targa project-generated traffic volumes at each of the traffic study intersections are illustrated on Figure 7.16-6: Construction Traffic Generation and on Figure 7.16-7: Operations Traffic Generation.



G:\TARGA 174156 Stockton\MXD\7.15-4 Existing Traffic Volumes.mxd

Legend

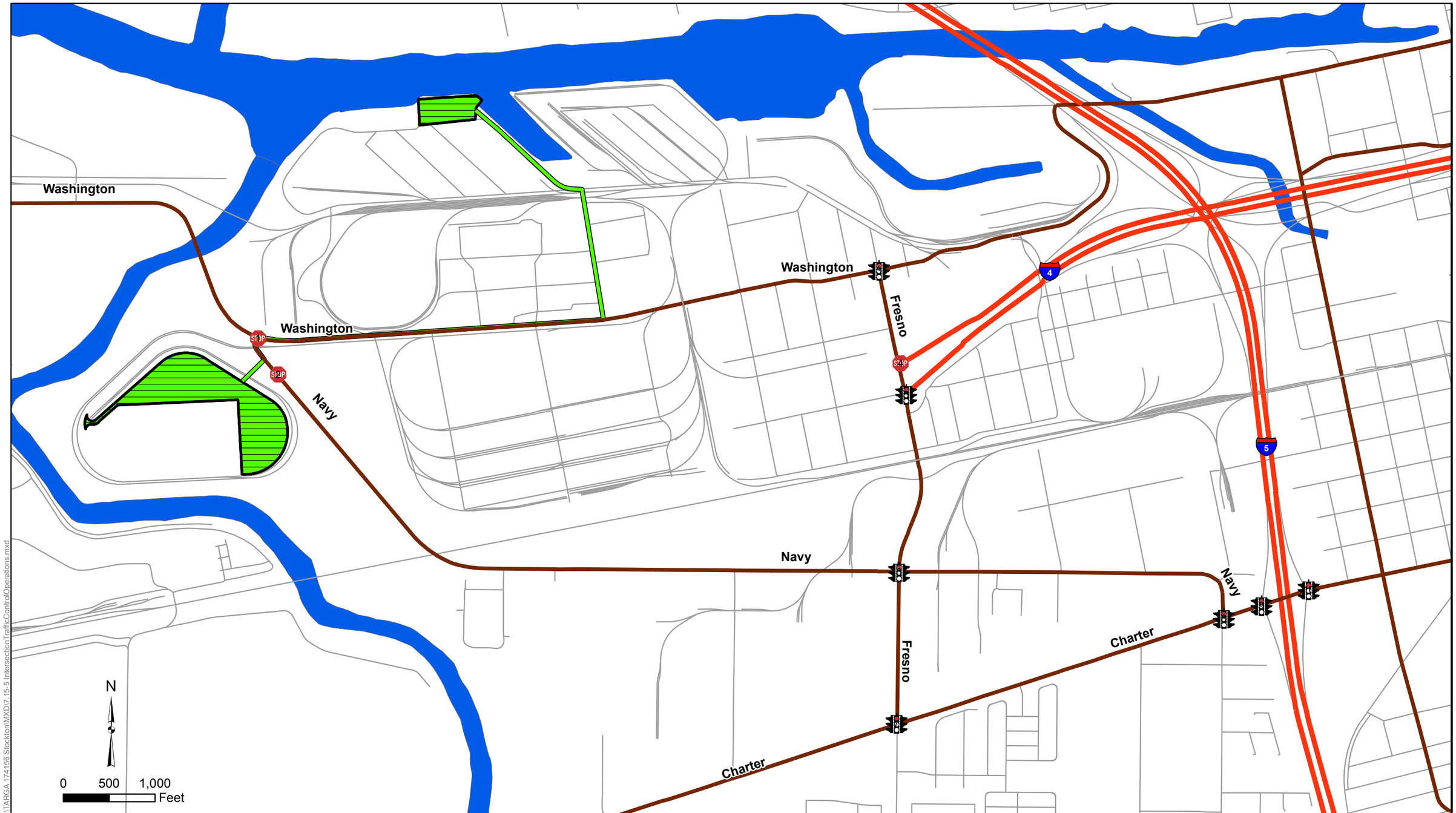
- Project Site TARGA Terminal
- Study Intersections
- Highway
- Major Road
- XX Morning Peak
- (XX) Evening Peak

EXISTING TRAFFIC VOLUMES

DATE: Nov 17, 2011	SCALE: 1:12,000
BY:	FIGURE: 7.16-4

TARGA

FACILITY: TARGA TERMINAL STOCKTON, CALIFORNIA



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Legend

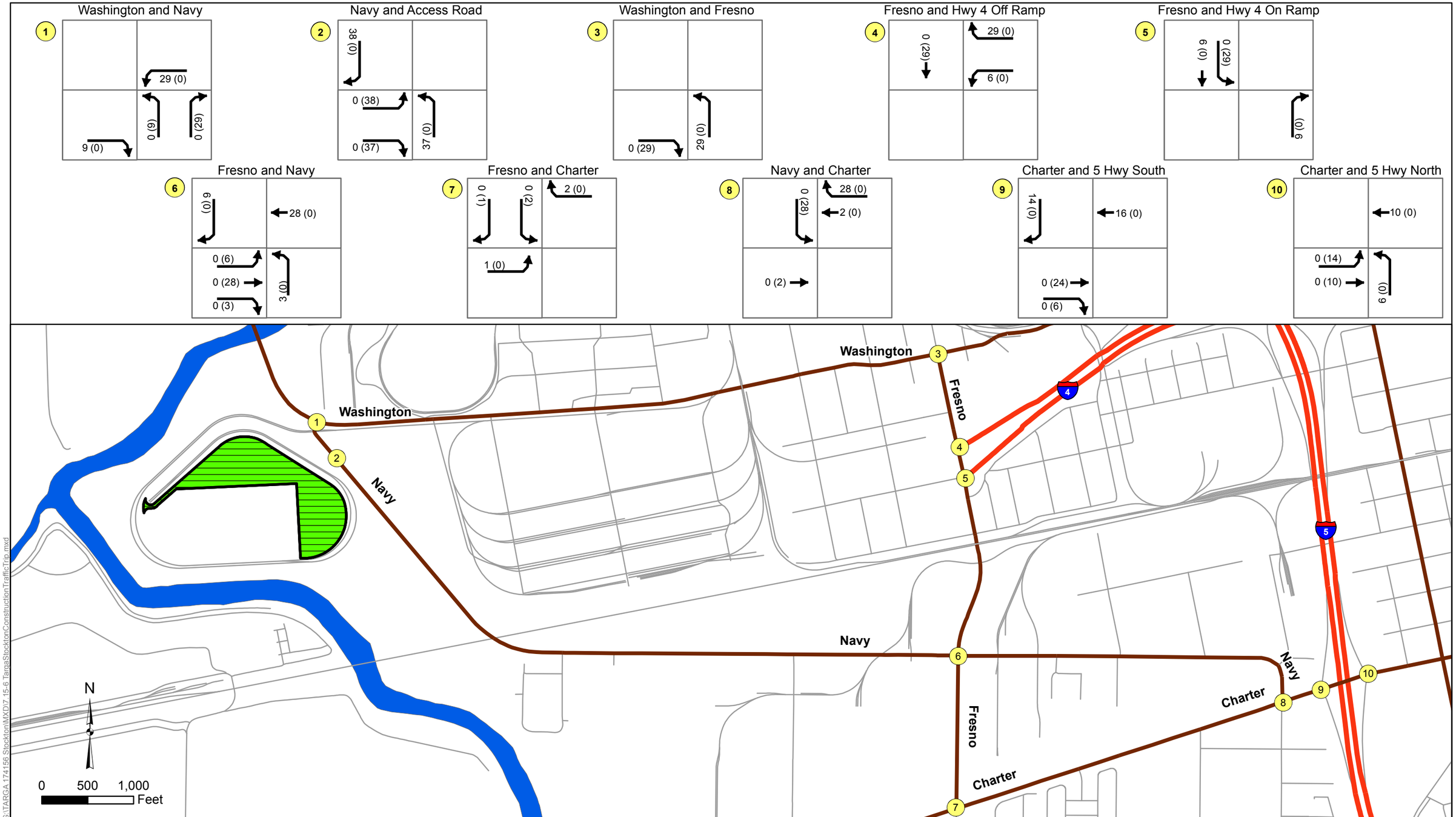
- TARGA Terminal and Berth
- TARGA Product Pipeline
- Stop Sign
- Traffic Light
- Highway
- Major Road

INTERSECTION TRAFFIC CONTROL OPERATIONS

DATE: Nov 17, 2011	SCALE: 1:12,000
BY:	FIGURE: 7.16-5

TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**



G:\TARGA 174156 Stockton\MXD\7.15-6 TargaStocktonConstructionTrafficTrip.mxd

Legend

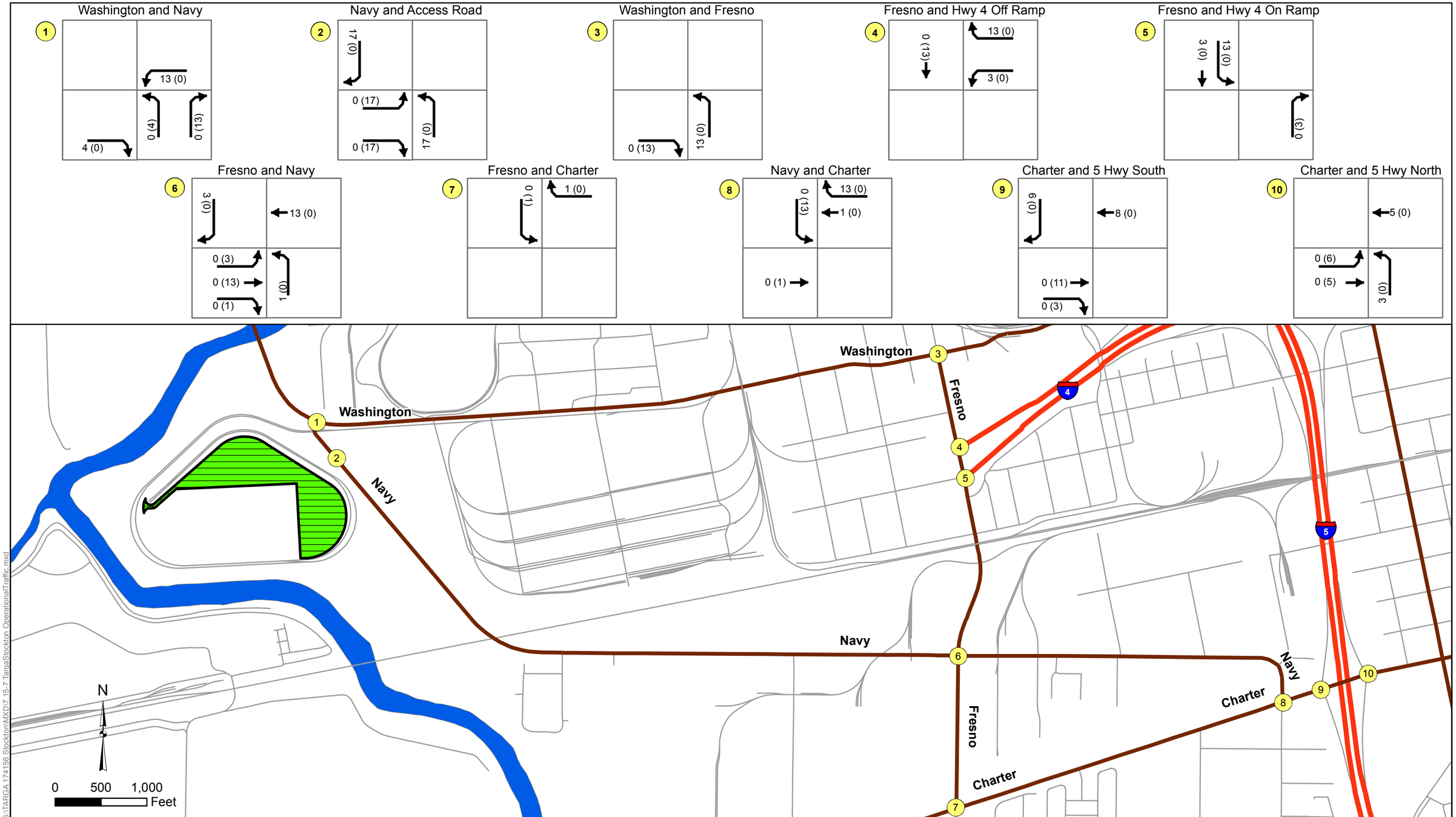
- Project Site TARGA Terminal
- Study Intersections
- Highway
- Major Road
- XX Morning Peak
- (XX) Evening Peak

TARGA-STOCKTON CONSTRUCTION TRAFFIC TRIP GENERATION

DATE: Nov 17, 2011	SCALE: 1:12,000
BY:	FIGURE: 7.16-6

TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**



G:\TARGA 174156 Stockton\MXD\7.15-7 TargaStockton OperationalTraffic.mxd

Legend

- Project Site TARGA Terminal
- Study Intersections
- Highway
- Major Road
- XX Morning Peak
- (XX) Evening Peak

TARGA-STOCKTON OPERATIONAL TRAFFIC TRIP GENERATION

DATE: Nov 17, 2011	SCALE: 1:12,000
BY:	FIGURE: 7.16-7

TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**

7.16.3.2 Other Land Transportation Issues and Plans

This section describes other traffic and transportation-related issues and plans important for the subsequent analysis of potential project impacts.

Passenger Vehicle/Truck Percentages

Recent peak hour critical turning movement traffic counts conducted by the TRC Solutions, Inc. traffic counters (August 2011) determined that truck traffic on surface streets near the proposed Targa project represents nearly 50 percent of all vehicle traffic. Truck traffic is a common daily contributor to localized traffic in the Port and industrial sector of the City. The proposed lease area is located in close proximity to interstate freeways and State highways that allow easy access to the proposed lease area for truck traffic and large loads. All roadways leading to the proposed lease area off of State Route 4 are designated as truck routes for delivery and services purposes.

Weight/Load Restrictions

The City of Stockton 2035 General Plan Transportation and Circulation Element does not specifically detail size and weight/load limits for any roadways in the City. Therefore, all applicable regulations are found in California Vehicle Code, which states that:

- The gross weight imposed upon the highway by the wheels on any axle of a vehicle shall not exceed 20,000 pounds and the gross weight upon any one wheel, or wheels, supporting one end of an axle and resting upon the roadway, shall not exceed 10,500 pounds.

- The maximum wheel load is the lesser of the following: (a) the load limit established by the tire manufacturer, or (b) a load of 620 pounds per lateral inch of tire width, as determined by the manufacturer's rated tire width.

- The gross weight imposed upon the highway by the wheels on any one axle of a vehicle shall not exceed 18,000 pounds and the gross weight upon any one wheel, or wheels, supporting one end of an axle and resting upon the roadway, shall not exceed 9,500 pounds, except that the gross weight imposed upon the highway by the wheels on any front steering axle of a motor vehicle shall not exceed 12,500 pounds; maximum allowable gross combination weight is 80,000 pounds (State of California Vehicle Code, Section 35550-35559).

- The maximum allowable vehicle height is 14 feet (State of California Vehicle Code, Section 35250-35252).

- The maximum allowable vehicle width is 102 inches (State of California Vehicle Code, Section 35100-35111).

- Maximum allowable length for a single vehicle is 40 feet.

- Maximum allowable length for combination of vehicles is 65 feet.
- Maximum allowable length for combination of vehicles consisting of a truck tractor and two trailers is 75 feet, provided each individual trailer length does not exceed 28 feet 6 inches (State of California Vehicle Code, Section 35400-35414).

As noted in the Vehicle Code, these provisions would not apply if the City permitted the operation and transport of vehicles and loads on City roadways in excess of the maximum gross limits specified in the Vehicle Code (State of California Vehicle Code, Section 35780-35796).

Public Safety

There are no road features or characteristics in the project vicinity that would affect public safety nor are there any sub-standard bridges along the potential access routes. In addition, there are no City roadways that are subject to normal weather-related closures such as localized flooding or fog.

Truck Routes

The City of Stockton 2035 General Plan assumes truck traffic will utilize the major roadways of the community and avoid the residential local streets. The general plan transportation element states: "*Truck routes shall be established in existing and new development areas as needed to efficiently serve truck traffic and to minimize impacts on neighborhoods. The City shall direct truck traffic to designated truck routes.*" The grid system of thoroughfares and expressways encourages truck traffic to stay on these major streets and off local streets except for deliveries.

Hazardous Materials

The City of Stockton 2035 General Plan does not address hazardous materials transportation permits or routes.

7.16.3.3 Marine Vessel Travel Conditions

Weather

Bay Area and Delta weather is seasonably variable, with three discernible seasons affecting the marine environment. The Bay and Delta Areas has several climate regimes, or microclimates. Significant differences in temperature, winds, and fog patterns over relatively short distances are due to variations in air mass between land and sea and to the complex terrain of the coastal mountain ranges. Wind direction is generally west to east; however, there is a great deal of variation due to the complex geography.

Because of the many microclimates of the San Francisco Bay Area and the Delta, mariners who navigate the waters from outside the Golden Gate through the San Francisco Bay and Delta and into the Central Valley must be aware of how weather conditions can change significantly over short distances and over short periods of time. Mariners must also be aware of the unique weather conditions and weather hazards that are most prevalent during each season.

Fog

Fog is a common occurrence in the Delta area. It is most frequent during the summer, occasional during fall and winter, and infrequent during the spring. Although daily and seasonal fog cycles are predictable, long-term fluctuations are not. Fog patterns can differ within the region on the same day because of the geography of the Central Valley, which consists of two mountain ranges, the large expanse of bays, and a major river system. Depending on the location, an area may experience high, dense, or relatively little fog.

Winter fogs are usually radiation fog, or Tule fog, which is notoriously thick and dense. In the winter months from late November to early March, fog can develop in the Valley overnight. Visibilities often fall to near zero in the Delta, southern Sacramento Valley, and northern San Joaquin Valley, making marine navigation in these areas difficult. The lowest visibilities occur late during the night through mid-morning hours. Visibilities improve by late morning and often the fog layer lifts into a low overcast during the afternoon. Visibilities can drop below 0.5 mile and stay below 0.5 mile for many hours, and in worst cases, several days. Given these conditions, a vessel operator must be prepared for such conditions at any given time.

Traffic

The proposed Targa project would increase the number of vessels entering the Port by one vessel of call per day. While increased traffic would require heightened awareness and increased focus on safety measures by all port operators, such an increase would not cause significant impacts related to traffic. This is because, notwithstanding the increased infrastructure at the Port, the number of inbound vessels has steadily decreased since 2008 (while the types of cargo have steadily increased, the number of vessels entering the Port have decreased) according to the Port of Stockton Annual Report 2009 (discussed in full below. *See*: Section 7.16.5.4).

Vessel Accidents and Near Accidents

Marine vessel accidents include vessel “allisions” (between a moving vessel and a stationary object, including another vessel), collisions (between two moving vessels), and vessel groundings. To limit the number of annual accidents, the Harbor Safety Committee of the San Francisco Bay (which has jurisdiction over marine safety matters from the San Francisco Bay inland through the Port), has developed the San Francisco, San Pablo, and Suisun Bays Harbor Safety Plan 2011. The plan embraces several methods of limiting accidents, including, but not limited to, reporting of accidents and near-accidents, near-misses, and casualties.

Reportable casualties are defined by a statutory minimum of injury beyond first aid, loss of life, or damages of over $25,000. 40 CFR 4.05-1 places the mandatory minimal limit of a reportable casualty as: as any accidental grounding or unintended strike of a bridge; loss of primary steering or propulsion or associated control system; an occurrence materially and adversely affecting the vessel‘s seaworthiness or fitness for service; loss of life; injury beyond first aid; or damages over $25,000. Near-accidents are managed by the UUSCG’s vessel Traffic Services (VTS), which was developed in response to a tanker collision accident in 1971 which resulted in an oil spill within the Bay region. Categorization of the VTS is subjectively based on available information.

Several reporting requirements have been developed within the Code of Federal Regulations (CFR). The reporting requirements vary by each situation[29]. Additionally, the Harbor Safety Committee (Committee) has developed guidelines for "Near Miss Situations"[30].

To avoid maritime casualties, accidents, near accidents, and near-misses, the Port applies the 72 COLREGS standards, which require the following, amongst several additional safety measures: (1) every vessel to have a look out (Rule 5), (2) every vessel to proceed at a safe speed at all times (Rule 6), and (3) every vessel to use all available means to determine risks of collision (Rule 7)[31].

The Committee has provided marine casualty statistics since 2006. The data is provided in Tables 7.16-3 through 7.16-6.

Table 7.16-3: San Francisco Bay Regional Port Safety Statistics (2010)

Casualty Type	Reported Casualties by Month												
	Jan	**Feb**	**Mar**	**April**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Total**
Allision/collision	2	0	1	1	1	2	1	1	1	1	0	0	11
Grounding/sink	0	0	0	0	1	1	0	0	0	1	0	0	3
Fire	1	0	0	1	0	0	0	1	1	0	0	0	4
Propulsion/electrical	2	5	5	6	1	3	3	5	5	6	1	8	50
Steering	1	1	0	0	0	0	0	0	0	1	0	1	4
Personnel	0	1	3	1	0	0	0	0	0	0	1	0	6
Other	0	0	1	1	1	0	2	0	0	0	0	1	6
Total	**6**	**7**	**10**	**10**	**4**	**6**	**6**	**7**	**7**	**9**	**2**	**10**	**84**

[29] VTS reporting applies to the following situations: (1) a marine casualty as defined in 46 CFR 4.05-1; (2) the ramming of a fixed or floating object; (3) a pollution incident as defined in 33 CFR 151.15; (4) a defect or discrepancy in an aid to navigation; (5) a hazardous condition as defined in 33 CFR 160.203; (6) improper operation of vessel equipment required by 33 CFR 164; (7) a situation involving hazardous materials for which a report is required by 49 CFR 176.48; or (8) a hazardous vessel operating condition as defined in 33 CFR 161.2. VTS authority is specifically granted in the CFR at: 33 CFR 161. *Id.* at (35, 56-61).

[30] A Near-Miss Situation is defined as: an incident in which a pilot, master, or other person in charge of navigating a vessel, successfully takes action of a non-routine nature to avoid: a collision with another vessel, structure or aid to navigation; the grounding of a vessel; or damage to the environment. *Id.* at 31.

[31] COLREGS is also known as: the International Regulations for Prevention of Collisions at Sea and is an internationally accepted safety standard.

Table 7.16-4: Reported Marine Casualties Annually by Type

Casualty Type	Reported Casualties by Year					
	2006	2007	2008	2009	2010	Total
Allision/collision	16	7	10	9	11	53
Grounding/sinking	11	9	4	6	3	33
Fire	1	1	1	0	4	7
Propulsion/electrical	19	22	14	54	50	159
Steering	6	2	4	4	4	19
Personnel	0	0	0	6	6	13
Other	0	0	0	6	6	9
Total	**53**	**41**	**33**	**85**	**83**	**293**

Table 7.16-5: Total Reported Marine Casualties per Month by Vessel (2010)

Vessel Type	Reported Casualties by Month												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
Tank	0	1	0	1	2	0	1	0	0	0	0	3	8
Freight/bulk/container	0	1	2	4	3	1	2	1	5	6	2	7	34
Passenger	0	2	4	4	3	1	1	2	2	2	0	0	21
Towing/tug/barge	3	0	1	0	1	1	1	1	0	1	0	0	9
Fishing	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	**3**	**5**	**7**	**9**	**9**	**3**	**5**	**4**	**7**	**9**	**2**	**10**	**73**

Table 7.16-6: Total Reported Marine Casualties Annually by Vessel

Casualty Type	Reported Casualties by Year					
	2006	2007	2008	2009	2010	Total
Tank	1	4	7	22	8	42
Freight (bulk/container)	19	24	17	38	34	132
Passenger	5	7	9	6	21	48
Towing/tug/barge	21	9	8	15	9	62
Fishing	4	1	1	5	1	12
Total	**50**	**45**	**42**	**86**	**73**	**296**

Tug Escorts/Assistance for Tank Vessels

Tug escorts have been implemented by the Committee to reduce the risk of oil spills.[32] The Committee has implemented a set of guidelines to ensure safe passage via tug escort that include: performance standards for stopping a tanker; equipment standards and inspection of tugs; positioning of regulated vessels; and training requirements for tug escort crews. *Id* SB 2040 recently the number of tug violations within the San Francisco Bay region escalated (0 were recorded from 1999-2003 and in 2004, 23 were recorded. 20 of the 23 violations were noted as infractions.). (SB 2040.)

Under-keel Clearance

Under-keel clearance is the distance between the deepest point on the vessel and the bottom of the channel in still-water conditions. Tank vessels carrying oil or petroleum products as cargo should maintain minimum under-keel clearances as follows: (1) tank vessels west of the Golden Gate Bridge: 10 percent of the vessel's draft; (2) tank vessels under way east of the Golden Gate Bridge: 2 feet; (3) Tank vessels at final approach to berth and at berth: Always afloat. Under-keel clearances are minimum standards during normal, calm conditions. As such, vessel operators must use prudent seamanship and should evaluate the need for additional clearance to accommodate squat rolling, listing, sink, and pitch. Furthermore, single hull tankers must adhere to the USCG regulations published in 33 CFR 157.455[33].

Miscellaneous Safety Violations

In addition to the aforementioned violations, the Committee noted several other vessel navigational deficiency violations that were recorded in 2010 (see Table 7.16-7).

[32] Senate Bill 2040, passed in 1990, provides the Committee with the authority to regulate tug escorts in response to the Oil Spill Prevention and Response Act. Within the 1990 report, it was determined that the implementation of tug escorts could reduce the chances of an oil spill by 8 to 11 percent. *Id.* at 61.

[33] 40 CFR 137.455 requires operators of single-hulled vessels to consider the following factors prior to leaving port: (1) Factors to consider when calculating the anticipated controlling depth; (2) Consideration of weather or environmental conditions; and (3) Conditions which mandate when the tankship owner or operator shall be contacted prior to port entry or getting underway.

Table 7.16-7: Total Letters of Deviation Due to Navigational Deficiency Issued by Month (2010)

Navigational Deficiency	2010 Month												
	Jan	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
Radar	2	1	1	0	1	0	4	3	3	1	2	1	19
Gyro compass	1	0	1	1	0	0	2	0	0	0	0	0	5
Steering	1	0	2	1	0	0	0	0	0	0	0	0	4
Echo depth sounder	0	0	0	0	1	0	0	0	0	0	0	0	1
AIS	0	1	3	2	2	2	1	0	0	0	2	1	14
AIS-835	0	0	0	0	0	0	0	0	0	0	0	0	0
ARPA	0	0	0	0	0	0	0	0	0	0	0	0	0
Speed	1	0	0	0	0	0	0	1	1	0	0	0	3
Other	0	0	0	0	0	2	0	1	1	1	0	0	5
R.C.	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	**6**	**2**	**7**	**4**	**4**	**4**	**7**	**5**	**5**	**2**	**4**	**2**	**52**

7.16.4 Standards of Significance

Criteria used in determining whether project-related traffic impacts are significant are consistent with standard industry practice and California Code of Regulations Title 14, §15065. The environmental analysis in the 2006 Pacific Ethanol EIR considered an impact to transportation/traffic significant if the project would:

- cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system;
- exceed, either individually or cumulatively, a level of standard service established by the county Congestion Management Agency for designated roads or highways;
- result in a change in traffic patterns, including an increase in traffic levels or a change in location that results in substantial safety risks;
- substantially increase hazards due to a design feature or incompatible uses;
- result in inadequate emergency access;
- result in inadequate parking capacity; or
- conflict with adopted policies, plans, or programs supporting alternative transportation.

7.16.5 Impacts and Mitigation Measures

Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented in the following section. Transportation and traffic impacts resulting from implementation of the project are addressed in Section 3.15: Transportation/Traffic of the 2006 Pacific Ethanol EIR. The proposed Targa project is within the scope of the traffic analysis presented in the 2006 Pacific Ethanol EIR, and there are no changed circumstances since the preparation of this document that require re-analysis of cumulative impacts.

The proposed Targa project would involve marine transportation in addition to the above-described ground transportation. Although marine use was not reviewed in the 2006 Pacific Ethanol EIR, such a mode of transportation is common to the Port. Lastly, as the marine use is a portion of a larger-scale, comprehensive project, it is appropriate that all activities associated with the proposed Targa project are reviewed under one singular CEQA document. As such, marine use will be discussed where appropriate.

7.16.5.1 2006 Pacific Ethanol EIR Impacts

As discussed in the 2006 Pacific Ethanol EIR, the project design incorporates adequate on-street parking for employees, visitors, and inactive (non-loading) trucks. Other potential impacts (air traffic patterns, emergency access disruption, and alternative transportation policy conflicts) were discussed and found to be less than significant in the 2006 Pacific Ethanol Initial Study. The following impacts were addressed in the 2006 Pacific Ethanol EIR and are applicable to the proposed Targa project:

Impact #3.15.1 – Significant traffic increases resulting in LOS reductions – Less than Significant

Impact #3.15.2 – Substantially increase hazards due to design or access features or Constraints – Less than Significant

Impact #3.15.3 – Cumulative Impacts – Less than Significant

7.16.5.2 2006 Pacific Ethanol EIR Mitigation Measures

No mitigation measures from the 2006 Pacific Ethanol EIR are applicable to the proposed Targa project.

7.16.5.3 Targa Stockton Terminal Project-specific Impacts

<u>Construction Ground Transportation</u>

The construction-generated traffic volumes described in Section 7.16.3 were combined with the existing traffic volumes to calculate the projected traffic volumes during construction of the proposed Targa project, and are illustrated on Figure 7.16-8: Existing Traffic and Project Construction Traffic Volumes.

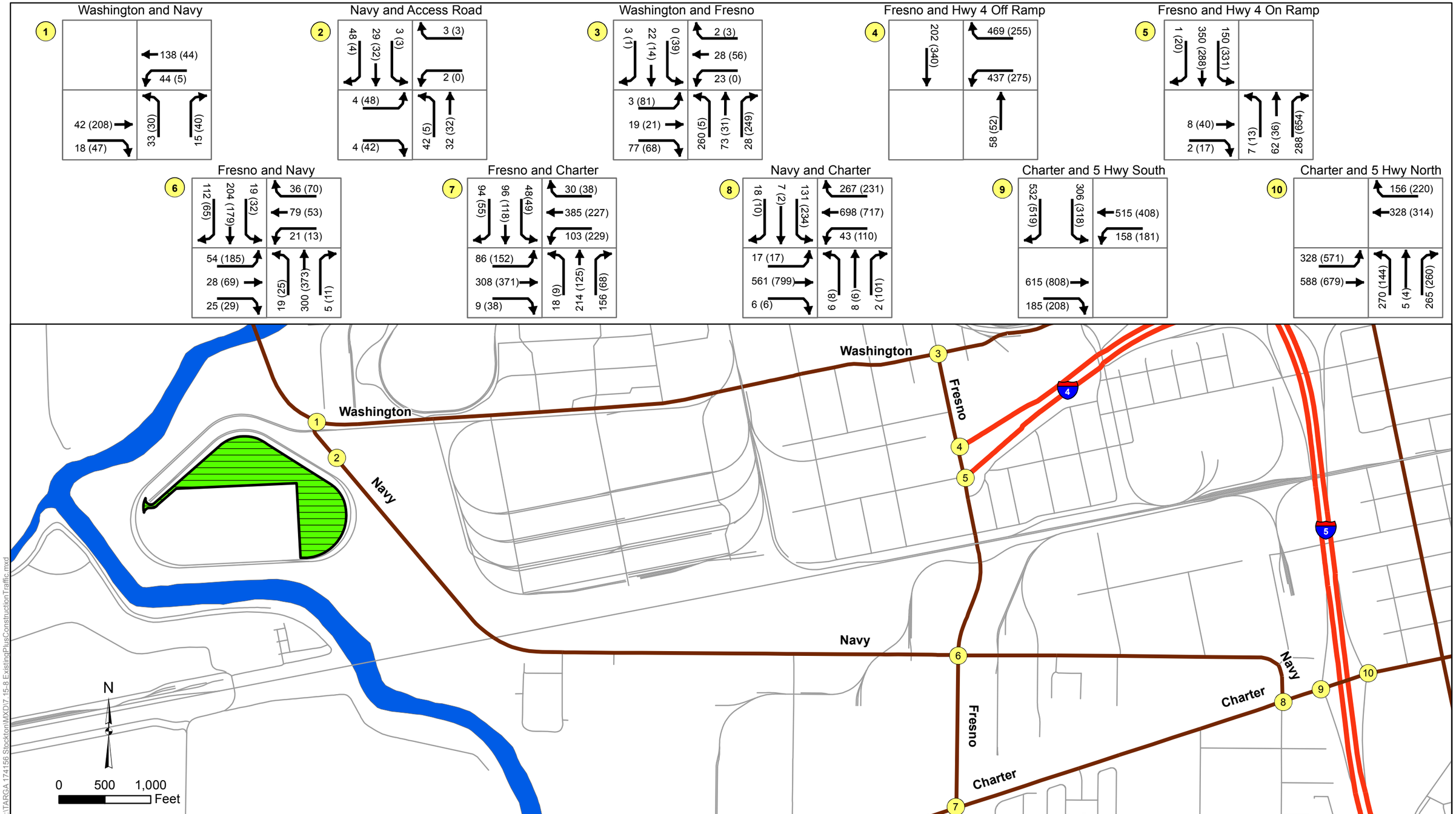
Capacity analyses were performed for the Peak AM and PM Hours for each of the study locations during the Facility Construction Condition to determine traffic operating conditions during construction. Table 7.16-8 summarizes the LOS for each study location during the construction period.

As illustrated in Table 7.16-8, all intersections would continue to operate at LOS levels above the threshold of significance set by the City of Stockton 2035 General Plan during project construction activities. Construction of the proposed Targa project would result in a less-than-significant impact. The unsignalized intersections operate at LOS levels above the required standard set out by the City of Stockton 2035 General Plan with minimal delays, and, thus, traffic signal warrants would not be required.

7.16.5.4 Targa Stockton Terminal Project-specific Mitigation Measures

TRAN-1 A traffic control plan will be developed in coordination with the City of Stockton Public Works Department and the Port for all construction in or near public right-of-ways associated with Port roadways and the proposed pipelines.

TRAN-2 Start times and end times of the construction day will be offset from identified peak traffic hours to mitigate traffic congestion on local streets and highways. Construction personnel will typically arrive at the lease area around 6:00 a.m., before the morning peak hour (8:00 a.m. to 9:00 a.m.). Construction employees will typically leave between 3:00 p.m. and 4:00 p.m., before the evening peak hour (5:00 p.m. and 6:00 p.m.).



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Legend

- Project Site TARGA Terminal
- Study Intersections
- Highway
- Major Road
- XX Morning Peak
- (XX) Evening Peak

EXISTING TRAFFIC PLUS PROJECT CONSTRUCTION TRAFFIC		TARGA
DATE: Nov 17, 2011	SCALE: 1:12,000	FACILITY: TARGA TERMINAL STOCKTON, CALIFORNIA
BY:	FIGURE: 7.16-8	

Table 7.16-8: Proposed Targa project Construction Level of Service Summary

Intersection	Peak AM Hour		Peak PM Hour	
	Existing	Construction	Existing	Construction
	LOS (Delay)	LOS (Delay)	LOS (Delay)	LOS (Delay)
Washington Street and Navy Drive	b (10.3)	b (10.8)	b (10.8)	b (10.9)
Washington Street and Fresno Avenue	B (11.1)	B (11.1)	A (8.6)	A (8.9)
Fresno Avenue and State Route 4 off-ramp	c (16.4)	c (16.8)	b (13.7)	b (14.2)
Fresno Avenue and State Route 4 on-ramp/West Hazelton Avenue	A (4.3)	A (4.3)	C (26.2)	D (38.0)
Fresno Avenue and Navy Drive	A (9.9)	B (10.3)	B (17.5)	B (17.7)
Fresno Avenue and Charter Way	C (30.6)	C (30.7)	D (45.8)	D (45.8)
Charter Way and Navy Drive	C (25.9)	C (25.9)	C (29.0)	C (29.3)
Charter Way and Interstate 5 southbound ramps	C (24.6)	C (26.0)	C (28.4)	C (28.3)
Charter Way and Interstate 5 northbound ramps	C (24.8)	C (26.1)	C (27.7)	C (28.7)
Navy Drive and site driveway	a (9.6)	b (10.4)	a (9.8)	b (10.2)

Notes: (1) Signalized intersections are represented by upper-case letters and the delay is provided in seconds per average vehicle for the intersection.

(2) Unsignalized intersections are represented by lower-case letters and the delay is provided in seconds per vehicle for the worst-case minor street approach (left-turn movement). All other movements operate at free-flow conditions or good Levels of Service.

Operations Ground Transportation

The operations-generated traffic volumes described in Section 7.16.3 were combined with the existing traffic volumes to calculate the projected traffic volumes during operation of the proposed Targa project, and are illustrated on Figure 7.16-9: Existing Traffic and Project Operations Traffic Volumes.

Capacity analyses were performed for the Peak AM and PM Hours for each of the traffic study intersections during the Facility Operation Condition to determine traffic operating conditions during operations of the proposed Targa project. Table 7.16-9 summarizes the LOS for each study intersection during project operations.

As illustrated in Table 7.16-9, all intersections would continue to operate at LOS levels above the threshold of significance set by the City of Stockton 2035 General Plan during operation of the proposed Targa project. In addition, the unsignalized intersections operate at LOS levels above the required standard set out by the City of Stockton 2035 General Plan with minimal delays, and, thus, traffic signal warrants would not be required. Therefore, project operations would result in a less-than-significant impact.

Access to Site

Access to the proposed lease area would continue to be provided by the existing unsignalized driveway located along Navy Drive, operating under stop control. The driveway is located opposite an existing driveway for the Yara Terminal.

Site Circulation

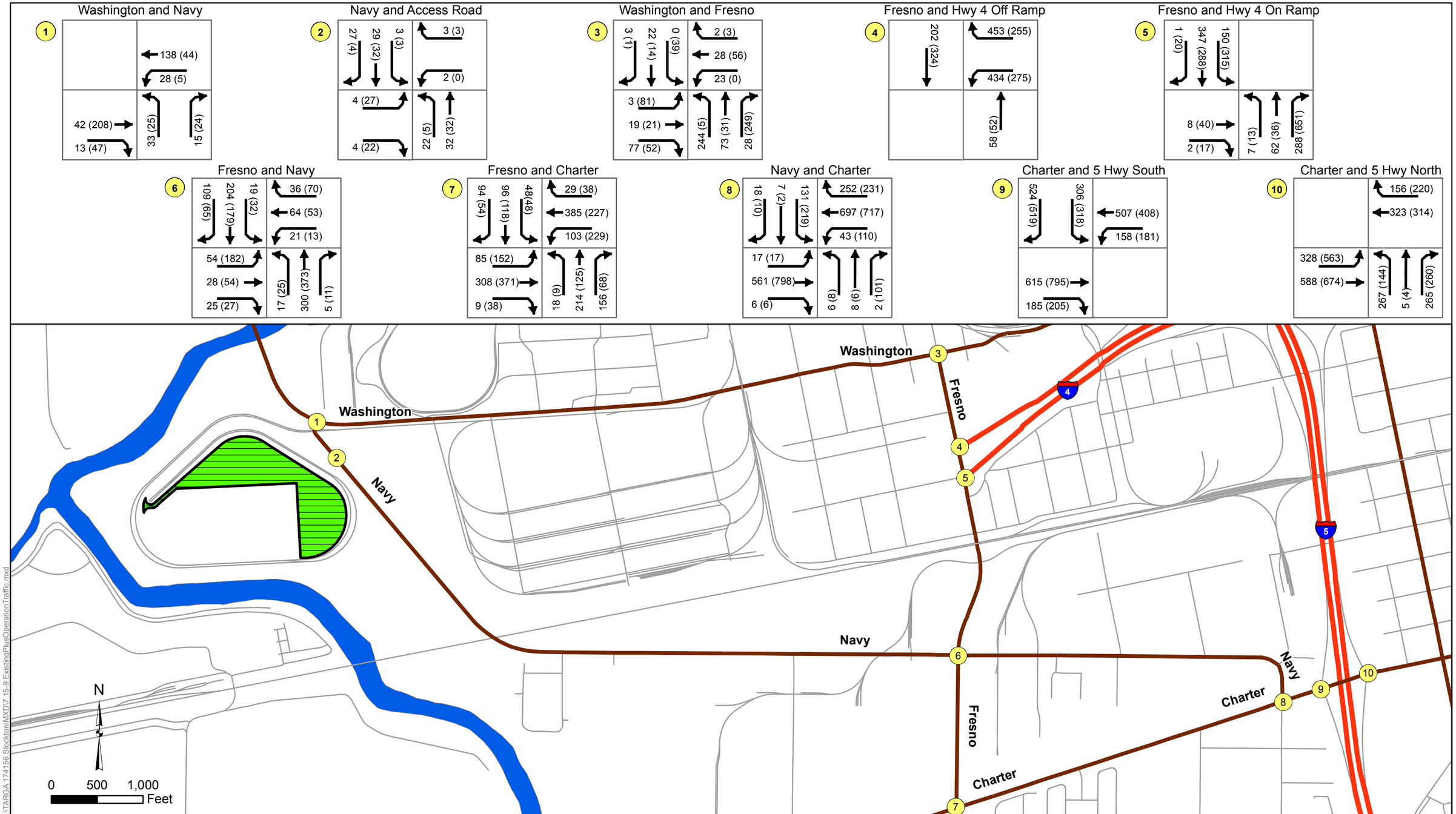
Traffic would flow on the two-way roadway from the site driveway throughout the site, including to the various parking areas. Site access has been designed to include a truck staging area and would provide proper turning radii for trucks to circulate.

Parking

Sufficient parking would be provided on-site and would accommodate the limited number of employees that would operate the plant as well as visitors.

Rail Access

An existing rail line provides, and will continue to provide, access to the site. This rail line crosses Navy Drive just south of Washington Street.



Legend

- Project Site TARGA Terminal
- Study Intersections
- Highway
- Major Road
- XX Morning Peak
- (XX) Evening Peak

EXISTING TRAFFIC PLUS PROJECT OPERATIONAL TRAFFIC

DATE: Nov 17, 2011	SCALE: 1:12,000
BY:	FIGURE: 7.16-9

TARGA

FACILITY: TARGA TERMINAL STOCKTON, CALIFORNIA

Table 7.16-9: Levels of Service during Project Operations

Intersection	Peak AM Hour		Peak PM Hour	
	Existing	Operations	Existing	Operations
	LOS (Delay)	LOS (Delay)	LOS (Delay)	LOS (Delay)
Washington Street and Navy Drive	b (10.3)	b (10.5)	b (10.8)	b (10.8)
Washington Street and Fresno Avenue	B (11.1)	B (11.1)	A (8.6)	A (8.7)
Fresno Avenue and State Route 4 off-ramp	c (16.4)	c (16.6)	b (13.7)	b (13.9)
Fresno Avenue and State Route 4 on-ramp/West Hazelton Avenue	A (4.3)	A (4.3)	C (26.2)	C (31.2)
Fresno Avenue and Navy Drive	A (9.9)	B (10.1)	B (17.5)	B (17.6)
Fresno Avenue and Charter Way	C (30.6)	C (30.6)	D (45.8)	D (45.8)
Charter Way and Navy Drive	C (25.9)	C (25.9)	C (29.0)	C (29.1)
Charter Way and Interstate 5 southbound ramps	C (24.6)	C (25.2)	C (28.4)	C (28.3)
Charter Way and Interstate 5 northbound ramps	C (24.8)	C (26.0)	C (27.7)	C (28.1)
Navy Drive and site driveway	a (9.6)	b (10.0)	a (9.8)	a (9.9)

Notes: (1) Signalized intersections are represented by upper-case letters and the delay is provided in seconds per average vehicle for the overall intersection.

(2) Unsignalized intersections are represented by lower-case letters and the delay is provided in seconds per vehicle for the worst-case minor street approach (left-turn movement). All other movements operate at free-flow conditions or good Levels of Service.

Construction Marine Transportation

Construction of contemplated improvements for Berth #9 may require use of marine-based construction equipment (e.g., primarily tugs and barges to support pile driving and installation of

structures). Marine vessels would include a derrick barge, workboat/crewboat, heavy lift derrick barge and work tug. During construction activities these vessels would essentially be stationary at the Berth #9 construction site.

Port pilots would be briefed on all Berth #9 construction activities, and by following standard safety procedures while piloting larger vessels through Port waters adjacent to the construction site would avoid the relatively fixed hazard that the construction activities at Berth #9 would represent. The construction contractor would be required by standard conditions of the USACE permit and by the Port contract to follow standard safety precautions and notification procedures. Accordingly, the short-term presence of construction vessels at the Berth #9 would not reduce the existing level of safety for vessel navigation in the Port. Therefore, construction impacts to vessel traffic would be less than significant. No mitigation is required.

Operations Marine Transportation

Berth #9 is a fully improved berth and has been designated by the Port as the appropriate location for the Targa Stockton Terminal operations. Berth #9 will be specifically designed and improved to safely accommodate a marine petroleum terminal. The location and design parameters of the improvements on Berth #9 will allow for safe maneuvering and passage through the SJDWSC of all ships that currently call at the Port. The proposed Targa project would not require any dredging as Berth #9 already has sufficient water depth to accommodate vessels that will call at the Targa Stockton Terminal. The Port Pilots have further confirmed that: (1) tankers/barges proposed to call at Berth #9 could safely navigate to Berth #9; and (2) moored tankers/barges at this berth would not prevent safe maneuvering of other vessels into the Port.

The proposed Targa project would increase the total number of tankers/barges calling at the Port by about 96 (in 2012) to 365 (in 2015 through 2030) additional vessels per year. Ship and barge calls to the Port have been declining over the past five years. According to the Port of Stockton Annual reports, in 2006, the a total of 167 ships and 146 barges navigated their way to and from Stockton. These numbers decreased to 102 ships and 13 barges (in 2009) and, in 2010, a total of 122 vessel calls. Based on today's ship traffic levels, the addition of 8 to 31 vessel calls per month from the proposed Targa project would result in fewer total vessel calls than the Port has already experienced and safely handled. The Port Pilots have indicated that scheduling and safe navigation of these additional vessels through the Port would not introduce any new safety concerns. While the proposed Targa project would increase vessel traffic at the Port, the projected increase would not be significant, given the current steady decline of vessels entering the Port.

Accordingly, the proposed Targa project operations would not reduce the existing level of safety for vessels navigating in the areas affected by the proposed Targa project. As noted the Targa Stockton Terminal would adhere to the International Safety Guide for Oil Tankers and Terminals (ISGOTT) and the Oil Companies International Marine Forum (OCIMF) Tanker Mooring Guidelines for tanker mooring and operations at the terminal. While the increased ship size associated with Panamex size vessels may affect maneuverability, the risk of accident is largely

based on the number of vessels present (U.S. Naval Academy 1999); accordingly, the larger size of the vessels would therefore not have significant impacts on safety within the Port.

The available statistical data on accidents that involve ships and tankers from the San Francisco and the Delta Region presented above suggest that proposed Targa project vessels are likely to have one or more ACG incidents during the life of the proposed Targa project. At peak capacity of 96 vessel calls per year, the probability of a project-related ACG would be 6.27×10^{-2}/year, or once every 31.8 years for open ocean transit. Within Port waters at a peak capacity of 96 vessel calls per year, the probability of a project-related ACG would be 9.25×10^{-2}/year, or once every 21.6 years.

For the above reasons, the vessel transportation impacts due to proposed Targa project operation would be less than significant. While the 2006 Pacific Ethanol EIR did not contemplate marine transportation, no additional mitigation measures would be required for marine transportation for the proposed Targa project.

7.16.6 Transportation/Traffic Initial Study Responses

Table 7.16-10: Transportation/Traffic Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to intersections, streets, highways, freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☑	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measure, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☑	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☐	☑
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑	☐
e) Result in inadequate emergency access?	☐	☐	☐	☑	☐
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑	☐

7.16.7 Responses to Initial Study Questions

7.16.7.1 No Conflict with Plan, Ordinance, or Policy Establishing Measure of Effectiveness for the Performance of the Circulation System: Less than Significant.

There would be an increase in traffic in the vicinity of the proposed lease area during construction activities, resulting from the construction workers and trucks required during the construction process. Since the project is not expected to cause a change in the LOS for surrounding road segments likely to be used during construction or operation and a traffic control plan is required by the City encroachment permit for all work with the public right-of-way associated with pipeline construction, the proposed Targa project would not result in a significant impact on existing traffic in the vicinity of the proposed lease area. The proposed temporary increase would not conflict with any such plan as required by the CEQA guidelines. As such, the increase in traffic would result in less than significant impacts. Furthermore, the increase in traffic volume will decline upon completion of the proposed Targa project (as less personnel will be required for day-to-day operations than for construction efforts). Increase in Traffic at the Proposed Lease Area during Construction The main access point to the proposed lease area for construction activities would be from the Pacific Ethanol entrance off Navy Drive. A security guard house, locked gates and perimeter fencing would control access into the proposed lease area. Vehicular traffic into and out of the site would be limited as much as practical to daylight hours. There would be adequate internal circulation and parking. Laydown of materials during the construction period would take place on an empty field just south of the proposed tank farm site (the identified staging area on Figure 3.6-1).

With a peak construction force of 75 to 100 employees, it is estimated that approximately 1 acre of land is required to accommodate the projected construction worker vehicles. Construction employee parking would be provided on available space at the tank farm and within the staging area, an empty lot just south of the railroad tracks. The available space at these sites exceeds 1 acre. It is anticipated that all vehicles associated with construction activities would be parked on these sites, and, thus, would not impact on-street parking in the surrounding industrial area.

The traffic analysis conducted for the proposed Targa project determined that the proposed Targa project construction and operation activities would not impact the LOS at any of the intersections that were analyzed. Since the project is not expected to cause a change in the LOS for surrounding road segments likely to be used during construction and a traffic control plan is required by the City encroachment permit for all work within the public right-of-way associated with pipeline construction, the proposed Targa project would not result in a significant impact on existing traffic in the vicinity of the proposed lease area.

<u>Truck Routes</u>

Increased transportation due to the crude oil pipeline construction and the construction of the tank farm would include deliveries of tank farm pumps, valves, piping, various equipment, and construction materials by truck such as asphalt, concrete, steel, and lumber. Truck deliveries would occur between 7 a.m. and 4:30 p.m. on weekdays. In total, approximately 2,160 truck

deliveries of materials and supplies are expected between summer 2012 and winter 2013, an average of approximately six deliveries per weekday. At various times during peak construction, the number of daily deliveries would increase to as many as 25 per day. This would not significantly affect the traffic/truck mix along State highways, but it may increase the ratio of trucks to passenger vehicles on City streets for short durations of time, which would be considered less than significant. The percentage breakdown of truck deliveries by load type is presented in Table 7.16-11.

All deliveries to the proposed lease area would be received at the Pacific Ethanol entrance, utilizing Navy Drive.

Significant effects on the local transportation system are not expected from tank farm, Berth #9, or the crude oil and product pipeline construction activities for the following reasons:

- The only noticeable effects on traffic would be localized near the construction site.
- The proposed lease area construction shift would generally begin at or prior to 7 a.m. and finish at or prior to 4:30 p.m. This would limit the number of vehicles during peak hour traffic periods, thus reducing potential traffic effects.
- The projected number of truck deliveries over the construction period is not expected to significantly impact the existing truck/passenger car traffic ratios of the surrounding network. Any noticeable impact in traffic composition would likely be limited to a relatively small number of days. Most deliveries would be spread over the construction period and would not significantly affect local traffic.

Table 7.16-11: Truck Deliveries by Type and Percentage

Delivery Type	Percent
Major equipment (components of the crude oil pipeline and tank farm, compressor, heating unit, valves, pumps, etc.)	18
Mechanical equipment	4
Electrical equipment and material	7
Piping, supports, and valves	10
Concrete and reinforcing steel	29
Miscellaneous steel, roofing, and siding	6
Administration and warehouse buildings	1
Construction consumables	15
Office supplies	2
Contractor mobilization and demobilization	3
Construction equipment delivery and pickup	5

Delivery of Hazardous Materials

In general, only small quantities of hazardous materials would be used during construction activities, and hazardous materials would be shipped by truck. This may consist of welding flux, paint, and various solvents. The tanks and pipes would be cleaned prior to start up using various alkaline solutions. These cleaning chemicals would be used in such small quantities that there would probably not be separate truck deliveries of hazardous materials during construction. If this should become necessary, however, all applicable requirements would be met, including the use of transporters with a Hazardous Material Transportation License. Additionally, all deliveries would follow the City-designated truck route, which offers the shortest overall transit time possible and avoids congested thoroughfares, places where crowds are assembled, and residential districts, thereby ensuring that such deliveries do not conflict with a local plan, ordinance, or circulation element.

Targa would obtain the appropriate permits required by the State of California (refer to Table 7.16-1). Transport of hazardous materials on City roadways would be limited in that the lease area is within 3 miles of the interchanges for Interstate 5.

Oversize or Overweight Shipments

Certain components of the facility are of such dimension and weight that special delivery may be required during construction. Oversize/overweight shipments are anticipated to be transported by heavy-load truck delivery. According to the City, there are no sub-standard bridges along any City roadways. Any necessary ground shipment exceeding the size and/or weight/load limits described would require a Single Trip Transportation Permit (State of California Vehicle Code, Sections 35780-35796). Appropriate permits would be obtained for all deliveries.

Crude Oil Pipeline

The crude oil pipeline route runs along existing public Port streets between the tank farm and Berth #9. Access during pipeline construction would be along existing roads and rights-of-way. An encroachment permit would be obtained from the City of Stockton Public Works Department prior to construction. In addition, an encroachment permit would be obtained from the Central California Traction Company to bore under tracks. Construction damage to existing roads would be repaired to original conditions, or as close to original conditions as possible. Traffic management plans would be filed with the City as part of the encroachment permit approval.

There is a potential for minor, short-term increases in motor vehicle hazards due to the operation of construction equipment because there may be temporary closures of the various Port streets and detours necessary to complete construction. Using standard linear construction practices (i.e., warning signs and lights, cones, and “reduce speed” notices), however, would reduce these impacts to less than significant. Traffic control, including signage and flag persons, would be required on all road segments during construction. Overall, construction of the proposed crude oil pipeline route is not anticipated to create long-term effects on the transportation system in the project vicinity. As discussed throughout this section, the proposed Targa project will not cause a significant increase in local traffic flows, and therefore, the effect on the local circulation

system will be less than significant as a result of the implementation of the proposed Targa project.

7.16.7.2 Conflict with an Applicable Congestion Plan: Less than Significant

The City's design level of service is LOS D or E. Level of service on existing City intersections selected for impact analysis are now at or above the acceptable LOS D or E as specified by the City of Stockton 2035 General Plan Transportation Element. All roadway segments and intersections within the traffic impact study area currently operate at a LOS classification of between B and E. Given the low volume of existing traffic on roads in the project vicinity, additional project traffic during project construction and operations would not cause an exceedance of LOS D on City roadways. Implementation of the proposed Targa project would have a less than significant impact on LOS standards established by the City.

7.16.7.3 Would the project result in a change in air traffic patterns: No Impact

The proposed Targa project will not result in a change in air traffic patterns, increase air traffic, or result in safety risks. The proposed Targa project will have no impact.

7.16.7.4 Substantially Increase Hazards caused by a Design Feature: Less than Significant

The proposed Targa project would create no new driveways; access would be off the existing Pacific Ethanol access road. Access to the new front office would be controlled from the proposed lease area to allow only access from the proposed new ingress/egress to the office location. The new ingress/egress location would be located more than 400 feet from existing intersections in accordance with City requirements. The proposed ingress/egress location would provide excellent sight distance, with no obstructions of views. It is anticipated standard driveway requirements would mitigate roadway operational hazards impacts to less than significant.

During construction, the proposed Targa project would use heavy construction equipment on local roadways, and major arterials. The use of roadways by heavy construction equipment can result in damage to roads, which may increase hazards for the public. There is also the potential for tracking dust, soils, and other materials from graded construction sites onto public roads, which could increase hazards. Standard conditions and requirements in the City encroachment permit is expected to mitigate these impacts to less than significant.

7.16.7.5 Result in Inadequate Emergency Access: Less than Significant

The proposed Targa project would not alter any existing emergency access routes or change existing patterns of emergency access. The proposed Targa project would not require closures of public roads, which could inhibit access by emergency vehicles. As described above, increased project-related traffic would not cause a significant increase in congestion or affect the existing LOS on roads, which could indirectly affect emergency access. The proposed Targa project circulation design includes the use of existing local access streets to all elements of the proposed lease area and paved access to all points within the site, which would facilitate emergency access

in the event of an emergency at the proposed lease area. Therefore, this impact would be less than significant.

7.16.7.6 Conflict with Adopted Policies or Programs within Stockton General Plan or Regional Transportation Plans: Less than Significant

The proposed Targa project is consistent with the goals and policies of the City of Stockton 2035 General Plan Transportation Element. The proposed Targa project would contribute less than 0.0025 percent of the total volume of traffic of nearby intersections to the proposed lease area. The transportation element also calls for maintaining a minimum LOS on all regional routes of significance of D or E, and the proposed Targa project does not degrade any regional routes of significance beyond the adopted LOS standard. Furthermore, the transportation element calls for limited driveways on all major arterials, and the proposed Targa project has limited ingress/egress to the lease area off the Pacific Ethanol entrance. Thus, by following the General Plan Transportation Element, the proposed Targa project will have a less than significant effect on the Plan or other plans and policies.

7.17 UTILITIES AND SERVICE SYSTEMS

This section assesses the existing public utilities and service systems that support the proposed Targa project and identifies the potential impacts posed by the proposed Targa project, and presents recommended mitigation where necessary. The public utilities and services analyzed in this section include: electricity, gas, water, wastewater, stormwater, telephone, and cable television. Each subsection describes the utility, the provider of the utility, and the infrastructure of the utility as it relates to the proposed Targa project. Construction of the project shall incorporate the raising and lowering of utilities (maintenance hole frames and covers, valve covers, clean-outs, etc.) as impacted by the roadway construction which will be associated with the pipeline component of the proposed Targa project.

7.17.1 Background

7.17.1.1 Regulatory Context

Federal Regulations

Federal water, wastewater, and waste regulations have been provided and discussed in previous sections of this document (see Section 7.7: Hazards and Hazardous Materials for discussion on hazardous waste and Section 7.9: Hydrology and Water Quality for discussion on water and waste water regulations). As previously discussed, the primary wastewater regulation that will be applicable to the proposed Targa project is the NPDES permitting regulation provided in the Clean Water Act, section 402 (NPDES permits allow for discharge of any pollutant, except for dredge or fill material, into waters of the United States. The NPDES permit program is administered by the Regional Water Quality Control Boards and is discussed in detail in section 7.9). Additionally, the controlling federal law surrounding hazardous waste and waste disposal include CERCLA and RCRA (as discussed in section 7.8).

State Regulations

California law requires preconstruction notification and agency coordination to protect infrastructure from damage caused by construction activities. Contractor State License Board Enforcement Business and Professions Code 7110, Assembly Bill (AB) 2719, AB 73 (Chapter 328), and Government Section Code Sections 4216-4216.9 require that contractors must provide proper notification and coordination with appropriate groups before commencing construction (i.e., digging) activities. In addition to coordinating activities and providing proper notification, the Project Applicant must obtain permits which address potential impacts on groups or agencies that use or own utilities affected by the proposed Targa project.

California state law (Government Code Sections 4216, 4216.2, 4216.9) requires that an excavator contact a regional notification center at least two days prior to excavation of any subsurface installations. The center for northern California is Underground Service Alert. Any utility provider seeking to begin an excavation project can call Underground Service Alert's toll-free hotline. Underground Service Alert, in turn, will notify the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the

specific locations of their facilities within the work area prior to the start of excavation. The excavator is required to probe and expose the underground facilities by hand prior to using power equipment.

Assembly Bill (AB) 939

In 1989, the California legislature enacted the California Integrated Waste Management Act (AB 939) requiring all cities and counties in California to divert 50 percent of their solid waste from landfills by the end of 2000. This Act further required every city and county in California to prepare a Source Reduction and Recycling Element (SRRE), a report describing: (1) the chief characteristics of each jurisdiction's waste, (2) existing waste-diversion programs and rates of waste diversion, and (3) the new or expanded programs the jurisdiction intended to implement to achieve the mandated rates of diversion.

7.17.1.2 Local Regulations

The proposed Targa project is subject to the City of Stockton's 2035 General Plan goals and policies listed below (the goals are listed as PFS—Public Facilities and Services).

PFS- 2 To ensure the adequate, reliable, and safe provision of water to all existing and future City of Stockton development, even through drought periods.

PFS- 3 To ensure adequate collection, treatment, and safe disposal of wastewater.

PFS- 4: To manage stormwater in a manner that is safe and environmentally sensitive to protect people and property and to maintain the quality of receiving waters.

PFS-5 To ensure the safe and efficient disposal or recycling of solid and hazardous waste.

PFS- 6 To provide adequate gas and electric services for city residents.

7.17.2 Methodology

Assessment of the proposed Targa project on utilities (water, wastewater, storm drainage, solid waste) and energy providers (electricity and natural gas) varies depending on the utility, but generally includes a comparison of the project generated demand against existing and anticipated resource supplies and/or conveyance capacity. Quantifications of demands and generations were included based on factors provided by the applicable agencies.

Water supply or conveyance impacts are typically evaluated by estimating water consumption factors associated with proposed lease area land use(s) or, unit demand factors per acre or gross square foot, as established by the City of Stockton, Department of Public Works. Construction activities would result in a total water demand of 4,675 thousand gallons (KGal), for the proposed Targa project. Based on historical water usage at similar facilities, the water estimates assumed operational water consumption factors of 150 gallons per day per 1,000 square feet of

office uses space and 80 gallons per day per 1,000 square feet of industrial uses space. The office and industrial square footages were determined using the total areas of the various buildings described in Appendix C: Prototype Terminal Facility Development Site Design Report. The Terminal Control Building, Administration Building, Security Building, and Tank Farm Operator Office and Control Building were included in the area designated for office uses; the Motor Control Building and Motor Control Center were included in the area designated for industrial uses. Berthing ships would also result in additional water demands in the event that an onboard distillation plant fails. In this case, the ship would require enough potable water to fill one tank, or 42,300 to 46,200 gallons. Based on the experience of Targa, a conservative assumption is that one tanker per month at most would experience distillation plant failure and require potable water while at berth. It is estimated that the proposed Targa project operational total office and industrial use water demands will be approximately 422 gallons per day, with Fire Protection Water Flow Demands of 2,000 gallon per minute.

Assessment of impacts on sewers or wastewater treatment systems generally includes the comparison of the project-related, land use-based wastewater flow generation to the existing and projected wastewater treatment capacity of the local treatment plant. The wastewater generation factor, as estimated by TRC Engineering for the proposed Targa project, is 150 gallons per day per person. Thus, during operations with 30 employees, the proposed Targa project is estimated to generate 1,500 gallons per day. During the construction phase with between 80 and 100 construction workers, the proposed Targa project will generate approximately 15,000 gallons per day.

Assessment of impacts to the storm drain system is based primarily on the determination of the contribution of the proposed Targa project to stormwater runoff. These contributions are compared to existing conditions or the diversion and disruption of surface water flows in the event that flooding would occur.

Impacts related to solid waste generally involve the estimation of the project-related, land use-based, solid waste generation, as compared to the capacity of the landfill(s) serving the proposed Targa project area. Construction activities would result in a total estimated solid waste generation of 5,524 tons. The operational solid waste generated by the proposed Targa project was determined using a generation factor of 1.5 pounds of solid waste per person per day. This factor was determined by numerous studies and the experience of Targa at other terminals. An additional 50 percent of the employee-generated waste was included to account for miscellaneous terminal-related waste. The percent contribution to the permitted daily capacities of local landfills was then determined based on the solid waste generation.

The determination of impacts on electricity and natural gas supplies depends on an estimation of demand generated by the proposed Targa project uses, as compared to availability and capacity of existing supplies and the conveyance infrastructure.

7.17.3 Environmental Setting

7.17.3.1 Stormwater Drainage and Flood Controls

Stormwater and flood control issues were discussed at length in section 7.9 (Hydrology and Water Quality). According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Community Panel Number 06077C0455F, effective October 16, 2009, the site is not located within a Special Flood Hazard Area. It is pertinent to note that Five Mile Slough, Mosher Slough, the Deep Water Channel, and the San Joaquin River are listed as "water quality impaired" and therefore, discharge into any such water must be limited and/or closely monitored (the proposed lease area may cause stormwater discharges into the San Joaquin River).

The Port has developed a DSP. The project is south of Washington Street and within the DSP's East Complex. All stormwater within this complex drains to a stormwater retention basin. During years when the retention basin reaches a high level, stormwater is pumped to the San Joaquin River. The Port of Stockton DSP specifies a number of Best Management Practices (BMP) requirements that are specific to each drainage zone and are applicable to this project.

The proposed lease area is bordered by a tributary of the San Joaquin River to the north, west and south and thus does not need to account for any offsite runoff. The areas not bordered by the river have drainage patterns directing flow east, away from the proposed lease area. The proposed lease area drains to an earthen channel around the north and east perimeter that discharges to an existing 36" concrete pipe culvert that handles all the flow from the watershed. The culvert discharges to a ditch along Navy Drive and culminates at the East Complex retention basin. Existing flow conditions are indicated on Table 7.17-1:

Table 7.17-1: Drainage Summary (Existing Conditions)

Drainage Area	Design Point	Storm Year	Tc (Min)	C	I (in/hr)	A (Ac)	Q (cfs)
1	1	10	25	0.75	1.20	27	24.30

The proposed stormwater collection system shown in Figure 3.5-6 was partially installed and planned out by Pacific Ethanol and approved by the City and Port in constructing the Pacific Ethanol Production facilities. The Targa Stockton Terminal Site Planning will incorporate the drainage ditch which surrounds the tank farm as a component of the drainage system. Stormwater flows would discharge to the perimeter earthen channel at several locations but will eventually culminate at the existing 36" culvert as in the existing condition. A gate valve will be placed on the current outfall in accordance to the plans previously approved to allow the stormwater to be metered off the site into the Port's stormwater drainage system. It is estimated that the existing earthen channel has the capacity to store 200 cubic feet per second.

According to the Stormwater Development Standards Plan, detention needs are met by the regional retention basin located southeast of the proposed lease area. The Targa Stockton Terminal will extend the existing 36" culvert with 36" RCP, approximately 750 feet from the existing outlet and connect directly to the retention basin to improve drainage conditions along Navy Drive. The retention basin does not discharge water until a high level is reached. Infrequently, when the high level is reached, the Port pumps retention basin water to the adjacent San Joaquin River.

7.17.3.2 Water Supply

The water purveyor for the proposed lease area is the California Water Service Company (Cal Water). There are two water lines in Navy Drive adjacent to the proposed lease area. These water lines are 6" and 18" in diameter and are composed of asbestos cement pipe. The existing Pacific Ethanol Production facilities also has existing water and fire lines running to the 30-acre lease site of Pacific Ethanol. The fire line is a twelve (12") inch diameter water line and the domestic water line is an eight (8") inch in diameter service. Both lines tap into the existing 18" water main line running along Navy Drive.

To provide water service to the proposed Targa project it has been proposed to connect to the existing eighteen (18) inch water main line in Navy Drive (*See:* Figure 3.5-7). Targa proposes to connect to the California Water Service main water line in Navy Drive with an eight (8") inch PVC (C-900) water service connection which will run along the common property line with the Pacific Ethanol Production facilities for approximately 600' before heading north on the west side of the control center. From there the line will head northeast, parallel to the planter strip. The line will continue until it reaches the containment area, at which point it will follow the containment perimeter before looping back to the connection point for a total length of approximately 2000'. A water meter will be required at the point of connection. The size and details of this meter will be provided by Cal Water following the submission of a proposed layout. Additionally, the system will require several gate valves and a permanent blow off apparatus for the flushing and isolation of the mains.

The proposed domestic main will connect to the existing eight (8") inch main entering the proposed lease area from the east. The water main can be accessed within the existing easement. This water main will meet all proposed domestic service needs for the Targa Stockton Terminal Project according to predicted flows and minimum design criteria established by City of Stockton Department of Public Works Drawings No. 101 & 101A.

Additional proposed water mains comprised of ten to twelve inch (10"/12" PVC (C-900) lines will service the fire hydrants placed throughout the proposed Targa project and along the existing entrance road from Navy Drive. These water mains will serve the proposed facilities and tank farms as well as provide fire coverage for the rail loading/unloading racks. The various fire hydrants have been spaced at distances of no greater than 300', as required by City of Stockton Department of Public Works Drawing 101A. The proposed fire water mains will connect to the existing twelve inch water main entering the proposed lease area from the east, accessed within the existing easement, and the eight (18") inch water mains in Navy Drive. These water mains

will meet all proposed fire water service needs for the proposed Targa project according to predicted flows and minimum design criteria established by the City of Stockton Department of Public Works Drawings No. 101 & 101A.

7.17.3.3 Wastewater Infrastructure

The Stockton Regional Wastewater Control Facility (RWCF) provides secondary and tertiary treatment of municipal wastewater from throughout the City. The RWCF is located north of Highway 4 on both sides of the San Joaquin River. The RWCF has a current dry weather flow capacity of 42 million gallons per day (mgd). Current dry weather flows at the facility are estimated to be on the order of 35 mgd, or approximately 80% of the current dry weather capacity of the facility; however, the City has contracted for the expansion of the RWCF to 48 mgd (and the eventual expansion to 55 mgd) (2006 EIR).

The sewer purveyor for the proposed lease area is Stockton Municipal Utilities District (MUD). There are two sewer trunk lines in Navy Drive to the east of the proposed lease area. These sewer trunk lines are fifteen (15) and forty-two (42) inches in diameter. The existing Pacific Ethanol Production facilities have an existing sewer line running to the 30 acre Pacific Ethanol lease area within a utilities easement. The existing sewer line serving Pacific Ethanol ties into the 42” trunk line located in Navy Drive.

The proposed Targa project will require an eight inch (8” PVC (C-900) sewer line that will run southeast to an existing manhole due east of the proposed lease area. The sewer line will also require three (3) manholes. Once the sewer line is on the proposed lease area, the sewer line will run parallel to the northern boundary of the existing Pacific Ethanol lease area. Several laterals to service the proposed control center, sample shed and oil water separator will tie into the sewer line at various locations. The proposed laterals will be six inches (6” PVC (C-900) pipe. The on-site sewer laterals will tie into one of the manholes on the east side of the proposed lease area. Proposed sewer line grades and capacities have been designed to ensure minimum standards are met per City of Stockton Department of Public Works guidelines and the proposed sewer main will meet all proposed service needs for the development according to predicted flows and minimum design criteria established by the City of Stockton Department of Public Works Sanitary Sewer Data Drawings No. 46 & 46A.

7.17.3.4 Waste Removal

According to the City’s Solid Waste Division, the City was compliant with meeting AB 939’s 25 percent recycling requirement in 1995. The CIWMB also made a “good faith” finding for the Stockton in 2000 (Stockton was at 47 percent versus the 50 percent requirement. However, at 46 percent, Stockton’s recycling rate fell four percentage points short of the mandated 50 percent rate in 2002 (this data was provided in the 2035 Stockton General Plan Goal Policy Report).

7.17.3.5 Gas and Electrical Services

Electric and natural gas services are provided within the area of the proposed lease area by Pacific Gas and Electric (PG&E). The City’s General Plan Goals require coordination efforts by

the City with service providers in planning the expansion of gas and electrical facilities to meet the future needs of City residents (and businesses).

The on-site PG&E electrical line, currently serving the adjacent Pacific Ethanol substation, is rated at 60 kV. PG&E has stated that electrical power for the proposed Targa project will be tapped off this existing 60 kV line, and brought to a new substation located in the eastern portion of the Targa Stockton Terminal tank farm. Based on the equipment list provided in Table 7.17-2 below, the total estimated connected load for the system is 3.5 MW, of which approximately 1 MW will be from small motor loads, 1 MW will be from large motor loads, 1 MW will serve other facility power requirements, and 0.5 MW will be reserved for future capacity, if needed.

The electrical system will consist of one 5 MVA transformer (60 kV to 4160V), one five-bay 1200A 4160V medium-voltage switchgear with integral starters for two 1500 HP pumps, one 2.5 MVA transformer (4160V to 480V), and two 480V motor control centers (one 3000A and one 1000A). There will be other small transformers and distribution panels located to supply 120/208 volt power as required.

Table 7.17-2: Proposed Targa project Electrical Load Summary

Description	Number of Motors	Horse Power	Total Horse Power	Load (Watts)
Small Motors				
Regular Gas	4	75	300	223,800
Premium Gas	3	75	225	167,850
Bio Diesel	2	75	150	111,900
ULS Diesel	2	75	150	111,900
LS Diesel	2	75	150	111,900
Ethanol	2	20	40	29,840
Transmix	2	50	100	74,600
Bio Fuel	2	50	100	74,600
Rail Car Off-Loading	12	7.5	90	67,140
Product Return	1	7.5	7.5	5,595
Drain Sump	1	10	10	7,460
Additive off-load	1	7.5	7.5	5,595
Gasoline Additive	8	2	16	11,936
Lubricity Additive	2	2	4	2,984
Red Dye Additive	2	2	4	2,984
Antistatic Additive	2	2	4	2,984
Large Motors				
Barge/Ship Loading	2	1,500	3,000	1,119,000
Total Pump Motors	50		4,358	2,132,068
Facility Power				1,013,068
Future/Spare Capacity (50%)				506,534
Total Power (Approximate)				**3,651,170**

Notes: 1. 746 watts per 1 HP @ unity power factor, assumes all pumps running.
2. Assumes only one 1500 HP motor running at any given time.
3. Facility Power @ 100% of small motor load.

7.17.4 Standards of Significance

The State CEQA Guidelines state that a project's impacts will normally be considered potentially significant if they violate any of the following criteria:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Fail to comply with federal, state, and local statutes and regulations related to solid waste.

7.17.5 Impacts and Mitigation Measures

7.17.5.1 2006 Pacific Ethanol EIR Impacts

Impacts of the Pacific Ethanol project related to Utilities and Service Systems are addressed in Section 3.16 (Utilities and Service Systems) of the 2006 Pacific Ethanol EIR. Significant impacts identified in the 2006 Pacific Ethanol EIR that are relevant to the proposed Targa project are presented below.

Impact #3.16.1– Impact to Wastewater Treatment

No change related to the wastewater treatment was noted in the 2006 EIR, as the wastewater treatment plant was noted as having adequate capacity to handle any additional wastewater from the Pacific Ethanol project. Therefore, no mitigation measures were required in the 2006 EIR.

Impact #3.16.2 – Impact to Storm Drainage Systems

The 2006 EIR noted that impermeable surface of the project would correlate to just over 10 percent (11 acres) of the entire surface area of the project. With such a limited surface area of impermeable surfaces, the increase in stormwater flowing into stormwater systems would not cause any impacts.

Impact #3.16.3 – Impact to Water Supplies

The 2006 Pacific Ethanol EIR noted that the Pacific Ethanol project would utilize 750 gpm and would connect to CWSC water lines. The 2006 Pacific Ethanol EIR noted that such an increase would not cause any impacts.

Impact #3.16.4 – Cumulative Impacts

The 2006 Pacific Ethanol EIR reiterated the above comments (the regional wastewater treatment plant has adequate capacity, stormwater would be limited, and the CWSC possesses adequate capacity for the draw required by Pacific Ethanol) and stated that no other cumulative impacts would result from the Pacific Ethanol project. Therefore, no impacts were incurred by the implementation of the Pacific Ethanol project.

7.17.5.2 2006 Pacific Ethanol EIR Mitigation Measures

No significant impacts on utilities and services were identified in the 2006 Pacific Ethanol EIR, therefore no mitigation measures were recommended.

7.17.5.3 Targa Stockton Terminal Project-specific Impacts

The project specific analysis of potential effect on utilities and services, potentially caused by the proposed Targa project, is based on field observation and review of the following information: local planning documents, project maps and drawings, and photographs of the lease area. No significant impacts to regional utilities or services were identified as a result of the proposed Targa project.

7.17.5.4 Targa Stockton Terminal Proposed Project-specific Mitigation Measures

The proposed Targa project will employ one Mitigation Measure to lessen the impacts on utilities and services.

US-1 Employ an approved Solid Waste Diversion and Recycling Plan.
Targa will develop a solid waste diversion and recycling plan in accordance with AB 341 (Solid Waste Diversion), which requires industrial and commercial construction efforts to recycle fifty percent of their industrial wastes. Such a plan would be implemented in conjunction with Calrecycle (formerly CWIMB) and San Joaquin County Solid Waste Division of the Department of Public Works (County has

adopted an ordinance, known as Ordinance Number 4310 (2009) similar in effect to AB 341). In addition to the requirement of diverting commercial and construction debris, the County ordinance requires the Owner/Builder to complete a Diversion Report within 30 days of completing the project.

7.17.6 Utilities and Service System Responses

Table 7.17-3: Utilities and Services Initial Study Responses

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☐	☑
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑	☐	☐
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☐	☑
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑	☐	☐

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐	☑
f) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☑	☐	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid wastes?	☐	☐	☐	☐	☑

7.17.7 Responses to Initial Study Questions

7.17.7.1 Exceed Wastewater Treatment Standards: Less than Significant

The Stockton Regional Wastewater Control Facility has sufficient capacity to treat the wastewater from the proposed Targa project. In addition, the site design proposes to limit impermeable surfaces of the proposed lease area to the greatest extent possible, thus it is unlikely that stormwater will be conveyed into the wastewater discharge system Furthermore, Section 7.9 has adequately addressed BMPs that will be utilized in conjunction with the proposed Targa project to mitigate any potential water treatment quality standards. As such, there are no impacts relating to exceedances of wastewater treatment requirements.

7.17.7.2 Result in the Construction of New Wastewater Treatment Facilities: Impact for Which 2006 Pacific Ethanol EIR is Sufficient

The Stockton Regional Wastewater Control Facility (SRWCF) has sufficient capacity to treat wastewater from the proposed Targa project. All wastewater will be discharged into the existing 18" sewer line located on Navy Drive that will convey discharges into the SRWCF for treatment processes. There is no evidence to suggest that there is insufficient capacity at the SRWCF. Current data on SRWCF in fact indicates that the facility possesses adequate capacity to treat wastewater from the proposed Targa project. Because the proposed Targa project is within the planned growth parameters of the City and the wastewater generated by the proposed Targa

project is minimal, the proposed Targa project will have a less than significant impact on wastewater treatment requirements.

7.17.7.3 Result in the Construction of New Stormwater Drainage: Less than Significant

The Port has developed a DSP. The Port of Stockton DSP specifies a number of BMP requirements that are specific to each drainage zone and are applicable to this project (as discussed in Section 7.8). As part of the Stormwater Runoff Plan, the proposed lease area would be subdivided into areas classified according to the means of handling drips, spills, and stormwater. Runoff from the access roadway would be designed to flow to the Port's designated stormwater detention basin. To ensure that the proposed Targa project does not overburden the existing storm drainage, Targa has proposed to construct site specific stormwater drainage.

Targa's proposed drainage would discharge to the perimeter earthen channel (the existing berm that surrounds the proposed lease area) at several locations, and stormwater will eventually culminate at the 30"-concrete pipe culvert that currently handles all the flow from the watershed. The 30"-piped culvert discharges to a ditch along Navy Drive which will be modified to install a direct pipeline to the East Complex retention basin. These modifications will be limited to the greatest extent possible and will occur solely to ensure adequate spacing for the proposed pipeline (if possible, upon completion of the placement of the pipe, the culvert will be restored to its prior state). As such, the proposed Targa project will not require additional off-site construction of stormwater drainage; however, as part of the proposed design and as described above, Targa will construct adequate on-site stormwater drainage. As such there is no stormwater drainage construction impact because of the proposed Targa project.

7.17.7.4 Have Sufficient Water Supplies: Impact for Which 2006 Pacific Ethanol EIR is Sufficient

The 2006 Pacific Ethanol described the water supply necessary for the operation of a 99-acre project as 419 gpm). The 2006 Pacific Ethanol EIR also noted that the site's water is supplied by the California Water Service Commission which has a well production capacity of 87,000 gallons per minute, plus a surface water supply of approximately 13,300 gallons per minute. The proposed Targa project will require significantly less water (422 GPD – discussion provided in Appendix J—Engineering Feasibility Report at section 5.2.2) than did the project reviewed in the 2006 Pacific Ethanol EIR. This difference is due to Pacific Ethanol's water requirements to complete its distillation process and other operations processes, whereas Targa will not require water for a distillation process and will utilize water for its control rooms, restrooms, and emergency showers/hydrants. As such, adequate water supplies are available to service the project; therefore the impact is less than significant.

7.17.7.5 Result in a Determination that the Wastewater Treatment Provider Does Not Have Adequate Capacity to Service the Project: No Impact

As discussed above (Section 7.16.6.1 and 7.16.6.3), the proposed Targa project will employ certain BMPs to limit potential wastewater received by the local treatment facility plant. Through the implementation of these BMPs (See Section 7.8), Targa will limit the proposed Targa

project's potential to exceed permissible wastewater discharge levels, thereby ensuring that wastewater discharges do not overburden the existing wastewater treatment plant facilities. As such, the proposed Targa project will have no impact in the determination that the wastewater treatment provider lacks adequate capacity to service the project.

7.17.7.6 Be Served by a Landfill that Lacks Capacity for the Project's Solid Waste Needs: Impact for Which 2006 Pacific Ethanol EIR is Sufficient

It is anticipated that the proposed Targa project will utilize solid waste collection services currently provided to the City of Stockton (Stockton currently employs Sunrise Sanitation and Stockton Scavengers for waste management). Additionally, the local landfill, the Austin Road Landfill, discussed in section 7.14.3.7, is not currently experiencing any shortage in available capacity. Based on the type of use proposed by the project (petroleum storage), it is not expected that the site will create substantial amounts of solid waste during operation. However, solid waste would be generated during facility construction (approximately 5,524 tons as discussed in section 7.17.3). The types of solid waste can be separated into the following categories:

- Non-hazardous metal waste, consisting of metal scrap
- Non-hazardous non-metal waste, including boxes and crates used in shipment of materials and daily refuse from construction workers
- Trenching spoils, consisting of such materials as rubble, soils, and broken asphalt
- Hazardous wastes, including contaminated soils and wastes from x-raying and coating from construction of pipelines and storage tanks.

Non-hazardous metal and non-metal waste can be hauled to local disposal centers for recycling. Hazardous wastes would be sent to a permitted treatment or disposal facility. Trenching and excavation spoils would be screened and separated for use as backfill materials at the site of origin to the maximum extent possible. Spoils unsuitable for backfill use would be disposed of in available county landfills. To further minimize the proposed Targa project's contribution to landfill capacity, implementation of Mitigation Measure US-1 would reduce potential impacts to a less than significant level.

7.17.7.7 Comply with Federal, State, and Local Solid Waste Regulations: No Impact

The proposed Targa project will be designed, constructed, and operated within the parameters of applicable Federal, State, and Local solid waste regulations. Any necessary permit will be obtained from local, state, and federal agencies having jurisdiction over the proposed Targa project. As such, no impact will occur with the construction and operation of the proposed Targa project.

7.18 MANDATORY FINDINGS OF SIGNIFICANCE

WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Impact for which 2006 Pacific Ethanol EIR is Sufficient	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☑	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☑	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐	☑

7.18.1 Responses to Initial Study Questions

7.18.1.1 Does the project have the potential to degrade the quality of the environment: No Impact

The proposed Targa project would not significantly affect fish or wildlife habitat, nor would it eliminate examples of California history or prehistory. Cumulative regional impacts could be significant, but mitigation measures to reduce these potentially significant impacts to a less-than-significant level are not within the jurisdiction of the Stockton Port District to enforce and monitor. These potentially significant and unavoidable impacts were adequately analyzed in the

2006 Pacific Ethanol EIR, cannot be mitigated further by the Stockton Port District, and were fully addressed in the Findings and Statement of Overriding Considerations adopted by the Board of Commissioners in connection with approval of the Pacific Ethanol Production and Transshipment/Storage Facilities and certification of the 2006 Pacific Ethanol EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

7.18.1.2 Does the project have impacts that are individually limited, but cumulatively considerable: Impact for which 2006 Pacific Ethanol EIR is Sufficient

The proposed Targa project is consistent with the previously approved Pacific Ethanol Production, Transshipment and Storage Facility Project, as described in Section Seven of this Tiered Initial Study. The proposed Targa project would not contribute to significant unavoidable impacts identified in the 2006 Pacific Ethanol EIR. It would incrementally contribute to, but not exceed, significant and unavoidable impacts related to transportation/circulation, noise, air quality, hazards and hazardous materials, biological resources, hydrology and water quality, geology and soils, cultural resources, aesthetics, public services, and utilities and service systems. These potentially significant and unavoidable impacts were adequately analyzed in the 2006 Pacific Ethanol EIR, cannot be further mitigated by the Stockton Port District, and were fully addressed in the Findings of Overriding Consideration adopted by the Board of Commissioners in connection with approval of the Pacific Ethanol Production, Transshipment and Storage Facility and certification of the 2006 Pacific Ethanol EIR. No additional impacts have occurred since the preparation of the previous EIR, and no changed circumstances requiring reanalysis of cumulative impacts have occurred.

7.18.1.3 Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly: No Impact

The proposed Targa project is consistent with the previously approved Pacific Ethanol Production, Transshipment and Storage Facility Project, as described in Section Seven of this Tiered Initial Study. The proposed Targa project would not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly, as documented in the 2006 Pacific Ethanol EIR. These potentially significant and unavoidable impacts were adequately analyzed in the 2006 Pacific Ethanol EIR, cannot be further mitigated by the Stockton Port District, and were fully addressed in the Findings of Overriding Consideration adopted by the Board of Commissioners in connection with approval of the Pacific Ethanol Production, Transshipment and Storage Facility and certification of the 2006 Pacific Ethanol EIR. No additional impacts have occurred in this area as there have been no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

8.0 FISH AND GAME DETERMINATION

FISH AND GAME DETERMINATION

Based on the information presented in this Tiered Initial Study, the project has a potential to adversely affect wildlife or the habitat upon which wildlife depend. Therefore, a filing fee will be paid. Without proof of fee payment, the Targa Stockton Terminal Project will not be operative, vested, or final, and any local permits issued for the project will be invalid, pursuant to California Fish and Game Code 711.4 (c)(3).

___ Certificate of Fee Exemption

_X_ Pay Fee

County of San Joaquin, Office of the Assessor, Recorder, & County Clerk
CEQA Document Declaration
Environmental Filing Fee Information

1. **Lead Agency:** Stockton Port District
2. **Project Title:** Targa Stockton Terminal Project
3. **Applicant Name:** Targa Terminals, LLC Applicant Phone: 713-584-1235
4. **Applicant Address:** 1000 Louisiana Street, Suite 4300, Houston, Texas, 77002-5036
5. **Project Applicant:** Private Entity
6. **Notice to be Posted:** 30 days
7. **Classification of Environmental Document:** Mitigated Negative Declaration (Public Resources Code Section 21080 (c)
8. **Fish and Game Fee:** $2,044.00
9. **County Administrative Fee:** $50.00

9.0 REFERENCES

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Targa Stockton Terminal Project

Stockton Port District Lease Approval

Tiered Initial Study & Proposed Mitigated Negative Declaration Appendices A-J

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February 2012

Appendix A – Proposed Mitigation Negative Declaration

APPENDIX A

Lead Agency:	Stockton Port District
Project Proponent:	Targa Terminals, LLC
Project Location:	3028 Navy Drive, Stockton, California.
Project Description:	Targa Terminals, LLC (Targa) proposes to develop approximately 19.92+/- acres within the rail circle that encompasses the Pacific Ethanol Production Facility as a Petroleum Terminal and Storage Facility. Targa is proposing to construct 20 petroleum product storage tanks of capacities ranging from 10,000 to 80,000 barrels (bbls), with a total storage capacity for the facility of 850,000 bbls. Improvements on the project site will include storage tanks, secondary containment systems, piping, control building, other buildings (pump, storage), truck loading and unloading rack and canopy, rail loading and off-loading rack, deep water channel berth facility improvements, additive systems, motor control center, fire protection, lighting, security, pipeline supply connections (Kinder Morgan and Deep Water Berth pipeline connections), access and product offsite transport, stormwater runoff infrastructure improvements, oil-water separator, emergency shutdown system, and cathodic protection. The proposed facility would connect to an existing petroleum product pipeline operated by Kinder Morgan Energy Partners LP (Kinder Morgan), which originates in the San Francisco Bay Area and transports most of the petroleum product requirements for the Northern Central Valley of California. In addition, the proposed facility would have rail, truck, and ship Inbound/Outbound Delivery Modes. The rail delivery modes would include: rail facilities, unit train capability, daily switching, 12 railcar spots, and services provided by both Union Pacific and Burlington Northern Santa Fe Railroads. A pipeline would transport liquids from barges and ship/tankers in the Port's deepwater dock facilities to the terminal storage area.
Incorporation by Reference:	This Mitigated Negative Declaration incorporates by reference in their entirety the texts of the Tiered Initial Study prepared for the project; the 2006 Pacific Ethanol Production and Transshipment Facility Environmental Impact Report (2006 Pacific Ethanol EIR) State Clearinghouse No. SCH 2006062102; and the Findings and Overriding Considerations adopted by the Stockton Port District, Board of Commissioners in connection with the 2006 Pacific Ethanol EIR, and the Pacific Ethanol Production, Transshipment, and Storage Projects.
Determination:	In accordance with CEQA, a Tiered Initial Study has been prepared by the Stockton Port District that evaluates the environmental effects of the proposed project. On the basis of the project's Tiered Initial Study, the Stockton Port Distict found that the proposed project may incrementally contribute to, but not exceed, certain cumulative significant impacts previously identified in the 2006 Pacific Ethanol EIR, and that for such impacts, no new mitigation measures, other than

those previously identified in the 2006 Pacific Ethanol EIR, are required or available. As analyzed in the Draft Tiered Initial Study, with implementation of all relevant 2006 Pacific Ethanol EIR mitigation measures, and implementation of all proposed project specific mitigation measures there is no substantial evidence that the project as mitigated may have a significant effect on the environment. Therefore, preparation of an environmental impact report is not required.

Public Review: In accordance with Section 15073 of the CEQA Guidelines, the Draft Tiered Initial Study for the project was circulated for public and agency review from February 28, 2012 to March 28, 2012. Comments received during the review period and responses to these comments are presented in the final Tiered Initial Study.

ATTEST: _____ _____

Date

Jason P. Cashman, Environmental Specialist
Stockton Port District
Environmental Compliance

Appendix B – Mitigation Monitoring and Reporting Plan

Mitigation Monitoring and Reporting Program

TARGA STOCKTON TERMINAL PROJECT

STOCKTON PORT DISTRICT

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February 2012

Table of Contents

1.0 MITIGATION MONITORING AND REPORTING PROGRAM ..... - 1 -
1.1 INTRODUCTION ..... - 1 -
1.2 OVERVIEW OF THE MMRP ..... - 1 -
1.3 PROJECT MONITORING AND REPORTING PLAN ..... - 1 -
1.4 PROJECT MONITORING AND REPORTING RESPONSIBILITY ..... - 2 -
1.5 MITIGATION AND MONITORING PROGRAM ..... - 2 -

LIST OF TABLES

Table 1 Mitigation Monitoring Program Table 3

1.0 Mitigation Monitoring and Reporting Program

1.1 INTRODUCTION

The purpose of the Mitigation, Monitoring, and Reporting Plan (MMRP) is to briefly identify mitigation measures that were provided in the Targa Stockton Terminal Project Tiered Initial Study and Mitigated Negative Declaration and to describe the roles and responsibilities of government agencies in implementing and enforcing the adopted mitigation measures provided therein. The MMRP provides the recommended framework for monitoring and reporting on the implementation of mitigation measures as it would be handled by the California Environmental Quality Act Lead Agency: the Stockton Port District. While all adopted mitigation measures will be implemented by Targa Terminals, LLC (Targa), several of the proposed measures will require oversight by varying public agencies (Stockton Port District, City of Stockton, San Joaquin Valley Air Pollution Control District [SJVAPCD]).

Public Resources Code, section 21081.6, and Section 15097 of the CEQA guidelines require a public agency to adopt an MMRP when it approves an environmental review document under CEQA that identifies mitigation measures to reduce environmental effects that would otherwise be significant. It is the standard practice of the Stockton Port District, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval be implemented properly, monitored, and compliance reported.

The environmental analysis for the proposed project is tiered from the 2006 Pacific Ethanol Environmental Impact Report (2006 EIR), in accordance with Section 15152 of the California Environmental Quality Act (CEQA) Guidelines and Public Resource Code Section 21094. The Stockton Port District views the MMRP as a working guide to facilitate both the implementation of the mitigation measures by Stockton Port District personnel and the monitoring, compliance and reporting activities of the Stockton Port District and any monitors it may designate. If the Stockton Port District adopts the recommended Mitigated Negative Declaration for the Proposed Project, it will also adopt this MMRP.

1.2 OVERVIEW OF THE MMRP

Targa and its contractors will be required to comply with this MMRP in all respects in the effort to mitigated identified significant environmental impacts and rendering such impacts *less than significant*. In any instance where non-compliance occurs, the Stockton Port District designated environmental monitors will issue a warning to the construction supervisor and Targa's Project Manager. Any decisions to halt work due to non-compliance will be made by the Stockton Port District. The Stockton Port District's designated environmental monitors will keep records of any incidents on non-compliance with mitigation measures. Copies of these documents will be supplied to Stockton Port District personnel. Compliance reports will be filed with the Stockton Port District on a minimum of once every three months.

1.3 PROJECT MONITORING AND REPORTING PLAN

The MMRP Table presented later in this MMRP includes those mitigation measures for the Proposed Project that has been identified in the Tiered Initial Study (IS) and will be implemented through Stockton Port District staff verification of required approvals. The MMRP table, which constitutes the monitoring and reporting program, includes the following:

- Identification of the mitigation measure.
- Identification of individuals or organizations responsible for monitoring and/or reporting.
- Identification of individuals or organizations responsible for verifying compliance.
- Identification of the phase of the permit process when each mitigation measure shall be initially implemented.
- Identification of the frequency and duration of required monitoring, if a measure requires continuous, frequent, monthly or annual monitoring.
- Identification of the performance criteria for determining the success of the mitigation measure, if appropriate.
- Identification of the effectiveness of the mitigation measure.

1.4 PROJECT MONITORING AND REPORTING RESPONSIBILITY

The Stockton Port District will be responsible for ensuring compliance with mitigation applicable to the Proposed Project. Staff will prepare, or require preparation of, reports identifying compliance with mitigation measures. Once construction has begun and is underway, the Stockton Port District will carry out monitoring of the mitigation measures associated with construction.

1.5 MITIGATION AND MONITORING PROGRAM

The table below provides a compilation of the mitigation measures identified in the Tiered Initial Study and Mitigated Negative Declaration for the Proposed Project. The purpose of the table is to provide the Stockton Port District, its environmental monitors, and other regulatory agencies with a single, comprehensive list of mitigation measures and their associated effectiveness criteria, timing, and enforcing agencies or departments.

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Aesthetics					
2006 Pacific Ethanol EIR Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
Agricultural and Forestry Resources					
2006 Pacific Ethanol EIR Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
Air Quality					
2006 Pacific Ethanol EIR Mitigation Monitoring					

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Impact 3.3.1 Particulate Matter (PM10) and Fine Particulate Matter (PM2.5) Construction Emissions. Project construction will result in numerous activities that will generate dust. The silty soils in the project area exacerbate the potential for dust, particularly in the summer months. Grading, earthmoving and excavation are the activities that generate the most PM10 and PM2.5 emissions.	**Mitigation Measure 3.3-1** Document the following actions in compliance reports A. Pre-Construction Activity: A1: Pre-water site. A2: Phase work. B. During Active Operations: B1: Apply water or chemical/ organic stabilizers/ suppressants. B2: Construct and maintain wind barriers. If utilizing wind barriers, control measure B1 above shall also be implemented. B3: Apply water or chemical/ organic stabilizers/ suppressants to unpaved haul/access roads and unpaved vehicle/ equipment traffic. C. Temporary Stabilization During Periods Of Inactivity: C1: Restrict vehicular access to the area C2: Apply water or chemical/organic stabilizers/ suppressants, sufficient to comply with the conditions of a stabilized surface. If an area having 0.5 acres or more of disturbed surface area remains unused for seven or more days, the area must comply with the conditions for a stabilized surface area as defined below: **Stabilized Surface:** any disturbed surface area or open bulk material storage pile that is resistant to wind-blown fugitive dust emissions. A surface is considered to be stabilized if it meets at least one of the following conditions: ❑ A visible crust; or ❑ A threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 centimeters per second or greater; or ❑ A flat vegetative cover of at Least 50 percent that is attached or rooted vegetation; or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind; or ❑ A standing vegetative cover of at least 30 percent that is attached or rooted vegetation with a predominant vertical orientation; or ❑ A standing vegetative cover that is attached or rooted vegetation with a predominant vertical orientation that is at least 10 percent and where the TFV is at least 43 centimeters per second when corrected for nonerodible elements; or	Document the following actions in compliance reports throughout construction efforts: Water site prior to construction; Apply water or chemical/ organic stabilizers/ suppressants during construction efforts; Construct and maintain wind barriers; Apply water or chemical/ organic stabilizers/ suppressants to unpaved haul/access roads and unpaved vehicle/ equipment traffic; Restrict vehicular access to the area; Apply water or chemical/organic stabilizers/ suppressants, sufficient to comply with the conditions of a stabilized surface.	A1: limit Visible Dust Emissions (VDE) to 20% opacity. A2: Reduce amount of disturbed surface area at any one time. B1: Limit VDE to 20% opacity. B2: Limit VDE to 20% opacity. B3: Limit VDE to 20% opacity & meet the conditions of a stabilized unpaved road surface. C1: Limit area of effect. D1: Limit VDE to 20% opacity. D2: Limit VDE to 20% opacity. E1: Limit VDE to 20% opacity. E2: Limit VDE to 20% opacity. Measures will reduce PM10/ PM2.5 impacts to a level that is less than significant.	Stockton Port District and SJVAPCD.	Pre- Construction

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Impact 3.3.1 Particulate Matter (PM10) and Fine Particulate Matter (PM2.5) Continued.	**Mitigation Measure #3.3-1** continued: ❑ A surface that is greater than Or equal to 10 percent of nonerodible elements such as rocks, stones, or hard-packed clumps of soil. D. Speed Limitations and Posting of Speed Limit Signs. D1: Limit the speed of vehicles traveling on uncontrolled unpaved access/haul roads within construction sites to a maximum of 15 miles per hour. D2: Post speed limit signs that meet State and Federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance. At a minimum, speed limit signs shall also be posted at least every 500 feet and shall be readable in both directions of travel along uncontrolled unpaved access/haul roads. E. Wind Generated Fugitive Dust Requirements. E1: Cease outdoor construction, excavation, extraction, and other earthmoving activities that disturb the soil whenever VDE exceeds 20% opacity. Indoor activities such as electrical, plumbing, dry wall installation, painting, and any other activity that does not cause any disturbances to the soil are not subject to this requirement. E2: Continue operation of water trucks/devices when outdoor construction excavation, extraction, and other earthmoving activities cease, unless unsafe to do so.	Document the following actions in compliance reports throughout construction efforts: Water site prior to construction; Apply water or chemical/ organic stabilizers/ suppressants during construction efforts; Construct and maintain wind barriers; Apply water or chemical/ organic stabilizers/ suppressants to unpaved haul/access roads and unpaved vehicle/ equipment traffic; Restrict vehicular access to the area; Apply water or chemical/organic stabilizers/ suppressants, sufficient to comply with the conditions of a stabilized surface.	Measures will reduce PM10/ PM2.5 impacts to a level that is less than significant.	Stockton Port District and SJVAPCD.	Pre- Construction

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Impact #3.3.2 Construction Emissions (Carbon Monoxide (CO), Reactive Organic Gases (ROG), Nitrogen Oxide (NOx), Particulate Matter PM10 & PM2.5. Several pieces of diesel powered heavy equipment typically operate during the construction phase of the project that have the potential to create emissions that exceed the SJVAPCD thresholds.	**Mitigation Measure # 3.3.2** Measure 3.3.2 was adopted to limit such emissions and includes the following: 1. The idling time of all construction equipment used at the site shall not exceed ten minutes. 2. The hours of operation of heavy-duty equipment shall be minimized. 3. All equipment shall be properly tuned and maintained in accord with manufacturer's specification. 4. When feasible, alternative fueled or electrical construction equipment shall be used at the project site. 5. The minimum practical engine size for construction equipment shall be used. 6. When feasible, electric carts or other smaller equipment shall be used at the project site. 7. Gasoline-powered equipment shall be equipped with catalytic converters.	Limit the following actions and document in compliance reports throughout construction efforts: 1. The idling time of all construction equipment used at the site shall not exceed ten minutes. 2. The hours of operation of heavy-duty equipment shall be minimized. 3. All equipment shall be properly tuned and maintained in accord with manufacturer's specification. 4. When feasible, alternative fueled or electrical construction equipment shall be used at the project site. 5. The minimum practical engine size for construction equipment shall be used. 6. When feasible, electric carts or other smaller equipment shall be used at the project site. 7. Gasoline-powered equipment shall be equipped with catalytic converters.	Measures will reduce CO, ROG, NOx, PM10, PM2.5 and impacts to a level that is less than significant.	SJVAPCD.	Construction Phase
Impact #3.3.3 Operational Air Emission Impacts.	**Mitigation Measure #3.3.3:** Use energy efficient building designs; purchase low-emission, alternatively-fueled or electrically-driven, maintenance vehicles and equipment; and implement a carpool/vanpool program.	Document the following in compliance reports throughout construction and operational phases: ❑ Use energy efficient building designs including automated control system for heating/air conditioning and energy efficiency, utilize energy-efficient lighting in buildings and use light colored roof materials to reflect heat. ❑ Purchase low-emission, alternatively-fueled or electrically-driven, maintenance vehicles and equipment. ❑ Implement a carpool/vanpool program, e.g., carpool ride-matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.	Measures will reduce operational air emission impacts to a level that is less than significant	SJVAPCD.	Construction and operations phases.

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
Construction Emissions.	**AQ-1** Install wheel washers for all exiting trucks, and equipment leaving the site.	Documentation required in quarterly compliance reports; Incorporate restrictions into contractor's bid package to limit impacts.	Reduction in Fugitive Dust.	Stockton Port District and SJVAPCD.	Pre-Construction and Construction phase.
Construction Emissions.	**AQ-2** Suspend excavation and grading activity when sustained winds exceed 20 mph or when gusts exceed 25 mph.	Documentation required in quarterly compliance reports; Incorporate restrictions into contractor's bid package to limit impacts.	Reduction in Fugitive Dust.	Stockton Port District and SJVAPCD.	Pre-Construction and Construction phase.
Construction Emissions.	**AQ-3** Use alternative fuel or catalyst equipped diesel construction	Documentation required in quarterly compliance reports; Incorporate restrictions into contractor's bid package to limit impacts.	Reduction in NO_X, CO, and CO_2 emissions throughout the construction	Stockton Port District and SJVAPCD.	Pre-Construction and Construction phase.
Construction Emissions.	**AQ-4** Minimize idling time.	Documentation required in quarterly compliance reports; Incorporate restrictions into contractor's bid package to limit impacts.	Reduction in NO_X, CO, and CO_2 emissions throughout the construction	Stockton Port District and SJVAPCD.	Pre-Construction and Construction phase.
Construction Emissions.	**AQ-5** Replace fossil-fueled equipment with electrically driven equivalents when**.**	Documentation required in quarterly compliance reports; Incorporate restrictions into contractor's bid package to limit impacts.	Reduction in NO_X, CO, and CO_2 emissions throughout the construction	Stockton Port District and SJVAPCD.	Pre-Construction and Construction phase.
Construction Emissions.	**AQ-6** Limit or curtail construction activity during periods of high ambient pollution.	Documentation required in quarterly compliance reports; Incorporate restrictions into contractor's bid package to limit impacts.	Reduction in NO_X, CO, and CO_2 emissions throughout the construction	Stockton Port District and SJVAPCD.	Pre-Construction and Construction phase.
Operational Emissions.	**AQ-7** Internal Floating Roofs (IFR) – Emissions are controlled by preventing vapors from being formed along the liquid surface by floating the roof directly on the stored petroleum product minimizing the area of interface between the product and the air within the tanks.	Document in Design Phase.	Reduction in Operational Emissions.	Stockton Port District and SJVAPCD.	Pre-Construction and Construction phase.

Appendix B

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Operational Emissions.	**AQ-8** Primary and Secondary Roof Seals – The seals prevent emissions from escaping from between the IFR and the tank shell. The primary seal is a metallic band (called a shoe) attached to the floating roof. The shoe slides in contact with the tank shell as the level of product in the tank rises and falls. The secondary seal is mounted above the primary seal. Secondary seals further reduce vapor losses from the gaps between the metallic shoe and tank shell.	Document in Design Phase.	Reduction in Operational Emissions.	Stockton Port District and SJVAPCD.	Design Review/ Final Review.
Operational Emissions.	**AQ-9** Drain Dry Design – A drain-dry tank can be completely drained of product using the standard pumping systems such that when changing between different product types the tank does not need to be cleaned as often.	Document in Design Phase.	Reduction in Operational Emissions.	Stockton Port District and SJVAPCD.	Design Review/ Final Review.
Operational Emissions.	**AQ-10** Drain Dry Vapor Recovery Unit – Vapors associated with the drain-dry operations would be extracted and destroyed through an incinerator air pollution control system.	Document in Design Phase.	Reduction in Operational Emissions.	Stockton Port District and SJVAPCD.	Design Review/ Final Review.

Appendix B

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Operational Emissions.	**AQ-11** Truck Loading Rack Vapor Recovery Unit – A John Zink Hydrocarbon Vapor Recovery Unit (VRU) would be installed to reduce ROG emissions from the Truck Loading Rack Canopy to 0.08 pounds or less per thousand gallons of organic liquid loaded at the loading racks. The VRU meets SJVAPCD Rule 4624, 5.0 requirements for the Stockton area.	Document in Design Phase.	Reduction in Operational Emissions.	Stockton Port District and SJVAPCD.	Design Review/ Final Review.
Operational Emissions.	**AQ-12** Reduce unnecessary idling usually needed to maintain climate control in the cab of trucks by offering electric power options at the TST.	Documentation required in monthly compliance reports; Incorporate restrictions into contractor's bid package to limit impacts.	Reduction truck traffic emission.	Stockton Port District and SJVAPCD.	Throughout Construction
Operational Emissions.	**AQ-13** Equip trucks with NOx reduction catalyst systems.	Documentation required upon start up of Targa Stockton Terminal.	All trucks operated by Targa show NOx reduction catalyst systems.	Stockton Port District and SJVAPCD.	Before Start-Up of Targa Stockton Terminal
Operational Emissions.	**AQ-14** Install efficient pumps to expedite fuel truck loading and unloading.	Document pump selection in final plan sets for construction of Truck Racks	Best Industry Standard for pump efficiencies.	Stockton Port District, City of Stockton, and SJVAPCD.	At time of City Plan Check of Improvement Plans
Operational Emissions.	**AQ-15** Implement scheduling strategies such that truck traffic is evenly dispersed throughout the day and avoids "rush hour" times.	Document within 3 months after start up of operations at Targa Stockton Terminal.	Even distribution of truck traffic in 24 hour period.	Stockton Port District	Within first 3 months of operations.
Operational Emissions.	**AQ-16** Instruct drivers regarding improved acceleration practices, shifting techniques, and route choice.	Show documentation of driver instructions. Driver signs statement of receiving instructions.	All drivers receive instructions.	Stockton Port District	Within first 3 months of operations.

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Biological Resources					
		2006 Pacific Ethanol EIR Mitigation Monitoring			
Impact #3.4.1.1- Substantial Adverse Effect on Candidate, Special-Status or Sensitive Species.	**Mitigation Measure #3.4.1.1** **Sensitive Plants**: Since there is the potential for federal or state endangered species (palmate-bracted bird's beak and delta button celery) and otherwise sensitive species to occur, the project shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multi-species Habitat Conservation Plan.	Contact San Joaquin Council of Governments to obtain and participate in Multi-Species Habitat Conservation Plan prior to construction; monitor throughout construction phase. If species noted, log and contact SJCG.	Measure will leave the impacts as Less Than Significant.	Stockton Port District and San Joaquin Council of Governments.	Prior to Construction
Impact #3.4.1.2- Substantial Adverse Effect on Candidate, Special-Status or Sensitive Species.	**Mitigation Measure #3.4.1.2** **Valley Elderberry Longhorn Beetle:** USFWS requires that a 100-foot (or wider) buffer zone be established and maintained around both elderberry plants. Since the project site plan indicates encroachment into this buffer zone, the project shall contact the San Joaquin Council of Governments to participate in and obtain encroachment authorization through the San Joaquin County Multi-species Habitat Conservation Plan.	Contact San Joaquin Council of Governments to obtain and participate in Multi-Species Habitat Conservation Plan prior to construction; monitor throughout construction phase. If species noted, log and contact SJCG.	Measure will leave the impacts as Less Than Significant.	Stockton Port District and San Joaquin Council of Governments.	Prior to Construction
Impact #3.4.1.3- Substantial Adverse Effect on Candidate, Special-Status or Sensitive Species	**Mitigation Measure #3.4.1.3** **Western Pond Turtle and Giant Garter Snake:** Because of the potential impact to these reptilian species, the project shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multi-species Habitat Conservation Plan.	Contact San Joaquin Council of Governments to obtain and participate in Multi-Species Habitat Conservation Plan prior to construction; monitor throughout construction phase. If species noted, log and contact SJCG.	Measure will leave the impacts as Less Than Significant.	Stockton Port District and San Joaquin Council of Governments.	Prior to Construction
Impact #3.4.1.4- Substantial Adverse Effect on Candidate, Special-Status or Sensitive Species	**Mitigation Measure #3.4.1.4** **Sensitive Birds:** Because of the potential loss of nesting habitat for many birds protected under the MBTA and/or other federal or State laws, the project shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multi-species Habitat Conservation Plan.	Contact San Joaquin Council of Governments to obtain and participate in Multi-Species Habitat Conservation Plan prior to construction; monitor throughout construction phase. If species noted, log and contact SJCG.	Measure will leave the impacts as Less Than Significant.	Stockton Port District and San Joaquin Council of Governments.	Prior to Construction
Impact #3.4.1.5- Substantial Adverse Effect on Candidate, Special-Status or Sensitive Species	**Mitigation Measure #3.4.1.5** **American Badger:** Because of the potential adverse impact to American badgers that may occur on the project site, the project shall contact the San Joaquin Council of Governments to participate in the San Joaquin County Multispecies Habitat Conservation Plan.	Contact San Joaquin Council of Governments to obtain and participate in Multi-Species Habitat Conservation Plan prior to construction; monitor throughout construction phase. If species noted, log and contact SJCG.	Measure will leave the impacts as Less Than Significant.	Stockton Port District and San Joaquin Council of Governments.	Prior to Construction

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Impact # 3.4.6- Cumulative Biological Impacts	**Mitigation Measure 3.4.6** The ethanol plant will be built on land that provides potential foraging and nesting habitat for a variety of sensitive migratory and resident bird species.	The habitat on the project site is considered to be low quality. Mitigation measures described above (for biological resources) will serve to reduce the project's incremental contribution to any cumulative impact to a less than significant level	Measure will leave the impacts as Less Than Significant.	Stockton Port District and San Joaquin Council of Governments.	Prior to Construction
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
No Impact.	**BIO 1** Conduct pre-construction site survey by professional biologist.	Site Survey by Professional Biologist to ensure no Incidental Takings occur. Document potential species takings prior to construction.	Measure will leave the impacts as Less Than Significant.	San Joaquin Council of Governments.	Prior to Construction
Cultural Resources					
2006 Pacific Ethanol EIR Mitigation Monitoring					
Impact # 3.5.1- Disturbance of Cultural or Historical Resources, Skeletal Remains	**Mitigation Measure 3.5.1** Pursuant to CEQA Guidelines 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist or paleontologist shall be contacted to assess the significance of the find. If any find is determined to be significant, project proponents and the qualified archaeologist and/or paleontologist would meet to determine the appropriate avoidance.	Complete a Cultural Resources Records search for the project site prior to construction.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Prior to Construction
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
Geology, Soils, and Seismicity					
2006 Pacific Ethanol EIR Mitigation Monitoring					

Appendix B

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
Greenhouse Gas Emissions					
2006 Pacific Ethanol EIR Mitigation Monitoring					
No Impacts Defined	No Impacts Defined	No Impacts Defined	No Impacts Defined		
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
Hazards and Hazardous Materials					
2006 Pacific Ethanol EIR Mitigation Monitoring					

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Operational Hazards:	**Mitigation Measure #3.7.1.1** Submit Hazardous Materials Business Plan to Stockton Port District. Before construction begins, Pacific Ethanol will submit a Hazardous Materials Business Plan to the Stockton Port District, prepared in accordance with the requirements of the California Business Plan Act. In the business plan, Pacific Ethanol will address health and safety issues pertaining to the fuel storage tanks. The business plan will also identify emergency procedures and an evacuation plan. Pacific Ethanol will implement the business plan at or before the start of construction. As part of implementation, Pacific Ethanol will ensure that plant employees are familiar with the plan and have ready access to safety equipment and Material Safety Data Sheets (MSDS). These sheets will describe the materials, storage and handling procedures, and emergency (spill or fire) procedures for onsite hazardous materials. Pacific Ethanol will implement a safety training program for employees working in the project area. Pacific Ethanol will be inspected by Stockton Office of Emergency Services to determine compliance with the business plan. Site inspections typically include discussions with the plant manager and employees to determine the level of familiarity with the business plan. Facilities will also be inspected to ensure the presence of proper safety equipment and the availability of. Evidence of safety training will be required.	Submit Hazardous Materials Business Plan prior to construction.	Measure will leave the impacts as Less Than Significant.	Stockton Office of Emergency Services	Prior to Construction Ongoing.
Operational Hazards	**Mitigation Measure #3.7.1.2** Pacific Ethanol will restrict all vehicle and equipment maintenance to a designated area with an impermeable surface. The surface will be designed to block soil and groundwater contamination caused by spills of materials commonly used in equipment maintenance, such as oils, fuels, solvents, and paint.	Record through monthly site visits.	Measure will leave the impacts as Less Than Significant.	Stockton Office of Emergency Services	Prior to Construction Ongoing.
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					

Appendix B

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Significant Hazard to the Public or Environment through Transport or Use of Hazardous Materials	**HM-1** Design project site with impervious surfaces and curbing for vehicular transportation and maintenance.	Inspect upon design and completion of construction.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Prior to Construction/Design Phase.
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-2** Provide all employees and the Stockton Port District with a hazardous materials business plan that educates employees on handling and shipping of hazardous materials.	Train employees on handling and shipping of hazardous materials prior to commencement of operations; document annually. Provide annual follow-up training for employees; document annually.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Prior to Construction/Design Phase.
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-3** Design project site with secondary containment for all ASTs.	Complete design of tanks pursuant to local/state/federal regulations; inspect of tank at completion of construction and ensure compliance upon routine maintenance.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Upon completion of construction.
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-4** Design all ASTs with fixed roofs that will be constructed of stainless steel to limit potential for leakage or spillage.	Complete design of tanks pursuant to local/state/federal regulations; inspect of tank at completion of construction and ensure compliance upon routine maintenance.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Upon completion of construction.
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-5** Design all ASTs with under-tank leak detection that will meet the requirements of American Petroleum Institute (API) 650.	Complete API 653 Inspection upon completion of construction and API 650 inspections as API Code requires.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Upon completion of construction.

Appendix B

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-6** Each tank foundation will have a membrane liner, which will be constructed of High Density Polyethylene, thereby ensuring any potential leakage is contained to the maximum extent possible, within the foundation area of the tank.	Complete design of tanks pursuant to local/state/federal regulations; inspect of tank at completion of construction and ensure compliance upon routine maintenance.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Complete inspection of tank at completion of construction
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-7** Design site with a buffer/berm area between the site and additional facilities and the San Joaquin River to limit off-site pollution.	Review site design prior to construction and ensure compliance at annual inspection.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Prior to Construction/Design Phase.
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-8** Provide Material Data Sheets (MSDS) to all employees for instructive and training purposes.	Provide Material Safety Data Sheets (MSDSs) and training of handling hazardous materials to each employee, upon hiring, assigned to work with or near hazardous materials. Provide annual training on products handled at the proposed project site.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Prior to Construction/Design Phase.
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM- 9** utilize temporary containment boom while loading/offloading all entering vessels.	All vessels at Berth 9 shall be surrounded by a spill containment boom prior to initiating unloading operations. Following unloading and before releasing the boom, the project tenant shall visually inspect the water surface or the area encircled by the containment boom and recover and dispose any floating materials (e.g., trash) or petroleum sheen. Compliance shall be recorded for every vessel docking in a loading/ offloading log.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Operations.
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-10** Construct a six inch curb at Berth 9 to limit off-site pollution.	Construct six inch curb in areas that could be affected by a spill while loading/off-loading product. Inspect design and site upon completion of construction.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Design and Construction Phase.

Appendix B

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-11** The Targa Stockton Terminal shall limit crude oil deliveries to double-hulled vessels. USCG regulations will require double-hulled vessels for all areas within the Exclusive Economic Zone of the U.S. starting 2015. This measure will bar Targa from accepting deliveries from single-hulled vessels at any time after commencement of the Project.	All vessels reporting to Targa shall be double-hulled.	Measure will leave the impacts as Less than Significant.	Stockton Port District and the USCG	On-going
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-12** Loading arms shall be equipped with USCG-approved quick-release couplings. A crude oil flow control system shall be interlocked at the coupling that will automatically stop flow prior to disconnection.	Provide plan specifications for Loading Arm improvements with required feature. Inspect after installation and verify quick-release couplings and crude oil flow control system.	Installed at Berth 9	Stockton Port District	Design and Construction Phase.
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-13** The proposed Targa Stockton Terminal Project would include fire water pumps improvements at Berth 9. Berth 9 would have new fire hydrants, foam tank, foam monitors, and water monitors to respond and mitigate potential upset. Also, ships and fire boats would be able to interconnect at Berth 9 for firefighting purposes.	New construction at the Berth #9 area will include: new fire hydrants, foam tank, foam monitors, and water monitors to ensure adequate fire suppression at the Berth area.	Installed at Berth 9	Stockton Port District	Design and Construction Phase.
Significant Hazard to the Public or Environment through Reasonably Foreseeable Accident	**HM-14** Employ leak detection (SCADA) for all pipelines to ensure that leaks are discovered, and all flow is shut-off, as quickly as possible.	The piping layout that will run from the Targa terminal site to the Berth area will include electronic leak detection and monitoring system that will limit any potential leak. Inspection logs will be maintained as a part of weekly pipeline inspections. Additionally, a log reporting any leaks within the pipeline will be maintained by the inspector.	Installed on piping throughout the proposed route	Stockton Port District	Design and Construction Phase.

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Hydrology and Water Quality					
2006 Pacific Ethanol EIR Mitigation Monitoring					
Levee Failure and risk of flooding.	**Mitigation Measure #3.8.4** The Port shall establish an annual levee-monitoring and inspection program. The purpose of the program will be to review and, if needed, reinforce the structural integrity of the perimeter levee on an annual basis in accordance with applicable local, state, and federal requirements. A licensed geotechnical or civil engineer shall prepare levee treatments proposed under the program.	Provide annual inspection reports of levee.	Measure will leave the impacts as Less than Significant.	Stockton Port District	Annually and On-going.
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
Potential of project to pollute surface water.	**WQ-1** Targa and/or contractor to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) and submit to SWRCB a Notice of Intent to discharge stormwater prior to beginning construction activities. The SWPPP must specify Best Management Practices that would minimize all construction pollutants from contracting stormwater, with the intent of keeping all products of erosion from moving off-site into receiving waters.	Submit SWPPP and Notice of Intent to SWRCB.	Measure will leave the impacts as Less than Significant.	SWRCB and Stockton Port District	Design and Construction Phase
Potential of project to pollute surface water.	**WQ-2** Spill prevention kits shall always be in close proximity when using hazardous materials (e.g.. crew trucks and other logical locations)	Provide spill prevention kits on site and document with Stockton Port District quarterly.	Measure will leave the impacts as Less than Significant.	Stockton Port District	Construction and Operational Phase.
Potential of project to pollute surface water.	**WQ-3** No fueling shall be done near waterways, near wetlands or immediate floodplains, unless equipment stationed in these locations is not readily located, i.e., pumps, and generators. For stationary equipment that must be fueled on-site, containment shall be provided in such a manner that any accidental spill of fuel shall not be able to enter the water or contaminate sediments that may come in contact with water. Any equipment that is readily moved out of the channel shall not be fueled in the channel or immediate floodplain. All fueling done at the job site shall provide containment to the degree that any spill shall be unable to enter the channel or damage river and wetland vegetation.	Targa Project Manager shall insure compliance and instruct all contractors on site regarding WQ-3.	Measure will leave the impacts as Less than Significant.	Stockton Port District	Construction and Operational Phase.

Appendix B

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Potential of project to pollute surface water.	**WQ-4 Targa** would prepare a pollutant control plan that specifies logistics and schedule for construction activities that will minimize the potential for erosion and standard practices that include monitoring and maintenance of control measures.	Develop a pollutant control plan that specifies the use of BMPs throughout the construction phase. Provide a weekly inspection of the BMPs to ensure they are adequately implemented throughout the duration of construction.	Measure will leave the impacts as Less than Significant.	Stockton Port District	Construction Phase.
Land Use and Planning					
2006 Pacific Ethanol EIR Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
Mineral Resources					
2006 Pacific Ethanol EIR Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
Noise					
2006 Pacific Ethanol EIR Mitigation Monitoring					

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Impact #3.11.1 – Construction Noise Impacts on Sensitive Receptors	**Mitigation Measure #3.11.1** 1) Construction activities shall be limited to between 6:00 a.m. and 9:00 p.m. If nighttime construction were required, spot noise monitoring would be required to assure that noise levels from construction activities do not exceed 65 Lmax at the property line of the nearest residence. Measures to reduce nighttime construction noise levels may include using noise barriers or reducing the amount of construction activity until noise levels are below the nighttime significance criterion. 2) Constriction equipment noise shall be minimize during project construction by muffling and shielding intakes and exhaust on construction equipment (per the ma manufacturer's specifications) and by shrouding or shielding impact tools. All equipment shall have sound control devices no less effective than those proved by the manufacturer. 3) material stockpiles and vehicle staging areas shall be located as far as practicable from residences.	Maintain the following in daily compliance logs; report violations as they occur: 1) Limit Construction Activities to the hours of 6:00 AM and 9:00 PM. 2) Muffle construction equipment to eliminate sounds. 3) Locate Material stockpiles and vehicle staging areas shall be located as far as practicable from residences.	Measure will leave the impacts as Less Than Significant.	Stockton Port District.	Prior to and throughout construction.
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
Noise Level Standards.	**NOISE -1** Advise the affected residents of the proposed construction, including the duration and schedule of activities.	Advise the affected residents of the proposed construction upon approval of the proposed project but prior to commencement of construction; maintain complaint log throughout construction.	Measure will leave the impacts as Less Than Significant.	Port of Stockton District.	Throughout Construction
Noise Level Standards	**NOISE-2** Wherever feasible, erect barriers or shields near construction equipment (e.g., compressors, pneumatic tools, drills, generators) considered major sources of noise. Barriers and shields effectively employed will reduce noise levels by as much as 15 dB from nearby workers at Pacific Ethanol production facilities.	Erect barriers or shields near construction where feasible. Inspect upon completion of construction and annually thereafter; maintain complaint log for affected residents.	Measure will leave the impacts as Less Than Significant.	Port of Stockton District.	Throughout Construction
Noise Level Standards.	**NOISE-3:** Targa Terminals, LLC will conduct the following document and response to each complaint, attempt to contact the person making the noise complaint within 24 hours, determine source of noise, and implement reasonable measures to reduce noise.	Maintain and submit noise complaint report to the Port of Stockton monthly during construction.	Measure will leave the impacts as Less Than Significant.	Port of Stockton District.	Throughout Construction
Population and Housing					
2006 Pacific Ethanol EIR Mitigation Monitoring					

Appendix B

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
Public Services					
2006 Pacific Ethanol EIR Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
Recreation					
2006 Pacific Ethanol EIR Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
Transportation/Traffic					
2006 Pacific Ethanol EIR Mitigation Monitoring					

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Impact #3.15.2- Substantially increase hazards due to design or access features or constraints	**Mitigation Measure #3.15.2** The existing rail line located north of the intersection at W. Washington Street and Navy Drive will be extended south to access the proposed site. With the current configuration of the intersection, the extension of the rail would create new at-grade crossings across each of the streets, for a total of two new crossings. To minimize the number of new crossings, the intersection geometrics will be revised by eliminating the existing southbound through access on Navy Drive, creating only one additional at-grade crossing at W. Washington Street. To improve safety at this proposed new one-track crossing, there will be one standard No. 9A automatic gate type signal with cantilever arm installed for eastbound traffic on W. Washington Street, as well as two standard No. 9 automatic gate type signals installed for westbound traffic on W. Washington Street and northbound traffic on Navy Drive. The signals will have LED lights to improve their visibility to approaching vehicular traffic. There will be 100' medians installed on W. Washington Street on each side of the intersection to deter people from driving around the activated gates. Advance warning signs will be used on all three legs of the intersection and railroad pavement markings will also be used in both directions on W. Washington Street and on Navy Drive to advise people they are approaching a railroad crossing. The new crossing is subject to the review and approval of the California Public Utilities Commission, and subject to any additional requirements for signs or other crossing.	Extend rail line north of intersection at W. Washington Street and Navy Drive to the south to allow access to the proposed site. Eliminate existing southbound through access on Navy Drive, creating only one additional at-grade crossing at W. Washington Street to minimize the number of crossings. New signals will have LED lights to improve their visibility to approaching vehicular traffic. Add 100' medians installed on W. Washington Street on each side of the intersection to deter people from driving around the activated gates. Utilize advance warning signs on all three legs of the intersection and railroad and pavement markings to be used in both directions on W. Washington Street and on Navy Drive. The crossing is subject to the review and approval of the California Public Utilities Commission.	Measure will leave the impacts as Less Than Significant.	California Public Utilities Commissions	Construction Phase.
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					

Appendix B

Impacts	Mitigation Measures	Monitoring/ Reporting Action	Criteria Effect	Monitoring Agency	Monitor/ Reporting Schedule
Substantially increase hazards due to design or access features or constraints.	**TRAN-1** A traffic control plan will be developed in coordination with the City of Stockton Public Works Department and the Port for all construction in or near public right-of-ways associated with Port roadways and the proposed pipelines.	Submit Traffic Control Plan to the approval of the City of Stockton Public Works Department and Stockton Port District	Measure will leave the impacts as Less Than Significant.	City of Stockton Public Works Department and Stockton Port District	Construction Phase
Contribute to congestion at intersections and degrade the Level of Service.	**TRAN-2** Start times and end times of the construction day will be offset from identified peak traffic hours to mitigate traffic congestion on local streets and highways. Construction personnel will typically arrive at the project site around 6:00 am., before morning peak hour (8:00 am to 9:00 am). Construction employees will typically leave between 3:00 pm and 4:00 pm, before the evening peak hour (5:00 pm and 6:00 pm).	Provide documentation that on monthly basis construction employee's work hours begin and end prior to peak hour traffic.	Measure will leave the impacts as Less Than Significant.	Stockton Port District	Construction Phase
Utilities and Service Systems					
2006 Pacific Ethanol EIR Mitigation Monitoring					
No Impacts Defined	None Required	None Required	None Required	None Required	None Required
2011 Targa Stockton Terminal Proposed Project Mitigation Monitoring					
Be Served By a Landfill that Lacks Capacity for the Project's Solid Waste Needs.	**US-1** Employ an approved Solid Waste Diversion and Recycling Plan.	Submit an approved Solid Waste Diversion and Recycling Plan to the Port of Stockton District prior to construction; employ all measures as directed in Recycling Plan.	Less than Significant.	Port of Stockton District.	Prior to Construction

Appendix C – Prototype Terminal Facility Development & Site Design Report

TARGA

PROTOTYPE TERMINAL FACILITY DEVELOPMENT & SITE DESIGN REPORT

Targa Stockton Terminal (TST)

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Table of Contents

Section 1.0 Introduction 1-1

1.1. Background 1-1

1.2. Need For Terminal 1-2

1.2.1. Need for Additional Capacity 1-2

1.2.2. Development Process 1-3

1.2.3. Distribution of Petroleum Products 1-4

1.2.4. Regional Context 1-4

1.2.5. Project Setting 1-4

1.3. Purpose of Report & Organization 1-4

Section 2.0 Project Description Summary 2-1

2.1. Project Facilities 2-1

2.1.1. Project Summary 2-1

2.1.2. Deep Water Channel Berth Facility 2-2

2.1.3. Storage Tanks 2-3

2.1.4. Control Building 2-5

2.1.5. Other Buildings 2-5

2.1.6. Truck Loading Rack Canopy 2-5

2.1.7. Railcar Off-Loading Rack (Loading – Future) 2-6

2.1.8. Additive Systems 2-6

2.1.9. Motor Control Center 2-6

2.1.10. Fire Protection 2-6

2.1.11. Lighting 2-7

2.1.12. Security 2-7

2.1.13. Pipeline Supply Connections 2-7

2.1.14. Access and Product Offsite Transport 2-9

2.1.15. Stormwater Runoff Plan 2-9

2.1.16. Oil-Water Separator 2-10

2.1.17. Emergency Shutdown System 2-10

2.1.18. Cathodic Protection 2-10

2.2. Terminal Operations 2-10

2.2.1. Refined Product Storage 2-10

2.1.1. Ethanol Fuels 2-11

2.1.2. Bio Fuels 2-12

2.1.3. Truck Off-Loading System 2-12

2.2. Project Objectives 2-12

2.3. Construction 2-13

2.3.1. Overall Project 2-13

2.3.2. Targa Stockton Terminal Construction 2-13

2.3.3. Pipeline Facility Construction 2-15

Section 3.0 Project Design Basis 3-1

3.1. Design Daily Throughput 3-1

Table of Contents

3.2. General Design Parameters 3-2

3.2.1. Deep Water Channel Berth 3-2

3.2.2. Vessel Offloading Systems 3-2

3.2.3. Terminal Facilities 3-2

3.2.4. Distribution System 3-3

3.3. Pipelines 3-3

3.3.1. Kinder Morgan Product Pipeline 3-3

3.3.2. Deep Water Channel Berth Pipeline Connection 3-4

3.3.3. Pipeline Seismic Design 3-4

3.3.4. Pipeline Coating and Cathodic Protection Systems 3-4

3.3.5. Pipeline Operations 3-5

3.4. Deep Water Channel Berth 3-6

3.4.1. Engineering and Design Standards 3-6

3.4.2. Berth Structures 3-6

3.4.3. Berth Layout 3-7

3.4.4. Berth Safety Features 3-7

3.4.5. Berth Fire Protection 3-7

3.4.6. Mooring and Fendering System 3-8

3.4.7. Offloading Arms 3-8

3.4.8. Containment Curbing and Sump System 3-8

3.4.9. Berth Piping, Pumps, and Valves 3-8

3.4.10. Berth Lighting 3-9

3.4.11. Utilities and Conduits 3-9

3.4.12. Berth Facility Controls 3-9

3.5. Terminal Storage & Receiving Facilties 3-10

3.5.1. Tankage System 3-10

3.5.2. Tank Construction 3-10

3.5.3. Tank Emission Control 3-11

3.5.4. Tank Containment 3-11

3.5.5. TST Control Systems 3-12

3.5.6. Petroleum Products 3-12

3.5.7. Denatured Fuel Ethanol 3-13

3.5.8. Product Return and Ethanol Off-Loading System (PRS) 3-13

3.5.9. Terminal Receiving Meters and Meter Proving ... 3-13

3.5.10. Drain Down Sump 3-13

3.5.11. Additive and Lubricity Offloading 3-13

3.6. Tank Storage Facility Capacities and Design Requirements 3-14

3.6.1. Gasoline 3-14

3.6.2. Regular Gasoline 3-14

3.6.3. Premium Gasoline 3-14

3.6.4. Diesel 3-14

Table of Contents

3.6.5. Denatured Fuel Ethanol 3-15
3.6.6. Transmix 3-15
3.6.7. Tank Storage Data 3-15
3.6.8. Truck Loading Rack and Design Requirements 3-17
3.6.9. Product Blending 3-17
3.7. TST Pumps 3-17
3.7.1. Transfer Pumps 3-17
3.7.2. Other Process Pumps 3-18
3.8. Additive Systems 3-20
3.8.1. Gasoline Additive Systems 3-20
3.8.2. Lubricity Additive System 3-20
3.8.3. Red Dye Additive System 3-20
3.8.4. Anti-Static Additive System 3-20
3.9. Truck Loading Vapor Recovery Unit (VRU) 3-20
3.10. TST Piping System 3-22
3.10.1. Codes and Standards 3-22
3.10.2. Piping Design 3-23
3.11. Site Improvements 3-23
3.12. TST Stormwater Runoff Plan 3-24
3.13. Oil Water Separator 3-25
3.14. TST Fire Protection 3-25
3.14.1. General 3-25
3.14.2. TST Storage Tanks 3-25
3.14.3. TST Truck Loading Rack 3-26
3.14.4. Control Room 3-26
3.14.5. Appurtenances 3-26
3.14.6. Codes 3-26
3.15. Electrical Power Requirements 3-26
3.15.1. Incoming Power 3-26
3.15.2. Motor Control Center 3-26
3.15.3. Vapor Recovery Unit 3-26
3.15.4. Oil Water Separator 3-27
3.15.5. Fire Protection 3-27
3.15.6. Lighting 3-27
3.15.7. Grounding 3-27
3.16. Instrumentation and Control 3-27
3.16.1. Kinder Morgan Takoff/Incoming Facility 3-27
3.16.2. TST Receiving Facility 3-27
3.16.3. Rack Control System 3-27
3.16.4. Load Rack Blend Skids 3-27
3.16.5. Tank Gauging 3-28
3.16.6. Programmable Logic Controller (PLC) 3-28
3.16.7. Communications 3-28

Table of Contents

3.16.8. Security 3-28

3.16.9. Uninterruptible Power Supply (UPS) 3-28

3.16.10. Emergency Shutdown (ESD) 3-28

3.17. Cathodic Protection 3-29

3.17.1. Terminal 3-29

3.17.2. Kinder Morgan Pipeline Extension 3-29

3.18. Site Structures 3-29

3.18.1. Design 3-29

3.18.2. Codes and Standards 3-29

3.19. Site Buildings 3-29

3.19.1. Architectural Treatment 3-29

3.19.2. Structural Systems 3-29

3.19.3. Plumbing Systems 3-29

3.19.4. Mechanical and HVAC Systems 3-30

Section 4.0 Codes & Standards Governing Design & Construction 4-1

Section 5.0 Project Drawings & Plans 5-1

List of Tables

Table 2-1 : Tank Farm Site Descriptions 2-3

Table 3-1: Throughput Projections 3-1

Table 3-2: Berth Structures-
Components & Specifications 3-6

Table 3-3: Tank Storage Data 3-16

Table 3-4: Transfer Pumps Summary 3-18

Table 3-5: Process Pumps Summary 3-19

Table 3-6: Vapory Recovery Unit Loading Profile 3-21

List of Figures

Figure 1-1: Regional Location Map
following page 1-5

Figure 1-2: Assessors Map
following page 1-5

Figure 1-3: Project Setting
following page 1-5

Figure 2-1: General Site Plan with Topographic Map
following page 2-4

Figure 2-2: Berth Layout
following page 2-4

Figure 2-3: Pipeline Route & Connection Map
following page 2-8

1.0 Introduction

1.1. Background

Targa Terminals, LLC (Targa) is considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. Targa is proposing to develop an approximately 19.92+/- acres within the rail circle at the Pacific Ethanol Site. An additional acreage controlled by the Stockton Port District, adjacent to the Pacific Ethanol Site is also available for future expansion. The terminalling and storage facility is planned for 20 petroleum product tanks with a range of tank sizes from 10,000 to 80,000 bbls with a total storage capacity for the facility of 850,000 barrels. The proposed project will provide loading rack services as a distribution point for a large variety of petroleum products. The loading rack service will include rack automation, midgrade blending, ethanol blending, California Air Resources Board (CARB) detergent additive systems, diesel red dye injection services, ethanol truck loading/offloading, and the ability to blend to various specifications needs to meet current energy policy requirements. The proposed facility would connect to an existing pipeline operated by Kinder Morgan Energy Partners LP (Kinder Morgan), which originates in the San Francisco Bay Area and transports most of the petroleum product requirements for the Northern Central Valley of California. In addition, the proposed facility will have the following Inbound/Outbound Delivery Modes: Rail facilities, unit train capability, daily switching, 12 railcar spots, and services provided by both Union Pacific and Burlington Northern Santa Fe Railroads; Truck, Barge, and Ship/Tankers connected by pipeline from the Port's deepwater dock facilities to the terminal storage area. The potential commodities to be handled based on customers' needs at the proposed facility include: CARB Gas, CARB Ultra-Low Sulfur Diesel, Jet Propellant -5 (JP-5), Ethanol, E-100, E-85, Low Ethanol Blends from E-5 to E-25 crude oil for refineries, and Biodiesel Blends from B-5 to B-99.9, BQ9000 Soy Biodiesel. The proposed project can be expanded to handle, Asphalts PG-64-22, PG-58-22, Anti-strip Injection, Petroleum coke, Propane, and Butane. The proposed project site is located on property owned by the Stockton Port District. The proposed project will be located immediately north and east of the Pacific Ethanol facility.

The proposed project will be located immediately north and east of the Pacific Ethanol facility. The Stockton Port District will have primary jurisdiction over the proposed project and will act as the California Environmental Quality Act (CEQA) Lead Agency. The federal regulatory agencies that may have jurisdiction over this project include the U.S. Environmental Protection Agency, U.S. Department of the Army Corps of Engineers, and U.S. Fish and Wildlife Service. State and local regulatory agencies involved in the permitting process include the California Regional Water Quality Control Board, California Department of Fish and Game, San Joaquin Valley Air Pollution Control District, City of Stockton, and the Stockton Port District.

1.2. Need For Terminal

In recent years, legislation at both the state and national levels has called for increased use of renewable/green energy sources in transportation fuels. In order to comply with regulations mandated by the Energy Independence and Security Act (EISA) of 2007, the Renewable Fuel Standard (RFS) program, and California State Assembly Bill 32 (AB-32) Low Carbon Fuel Standard, a drastic increase in fuel terminalling and storage facilities would be necessary to facilitate new blending requirements.[1] In addition to augmented storage capacity, the implementation of new fuel standards calls for increased transportation infrastructure to allow for the conveyance/handling of alternative fuel materials. According to an August 2009 staff report from the California Energy Commission (CEC):

> *California's logistical infrastructure for the importation and redistribution of ethanol will need to be modified to enable a greater quantity and flexibility of ethanol imports within the next 6 to 18 months. California's ethanol import and redistribution infrastructure will need to change rather quickly to accommodate the anticipated transition to 10 percent (E10) blending beginning January 1, 2009.*[2]

1.2.1. Need for Additional Capacity

Californians require mobility to conduct their everyday lives and attend to their business needs (CEC 2007b). Even with full implementation of the State Alternative Fuels Plan (CEC and CARB 2007), petroleum based fuels are and will continue to be a necessary part of California's energy portfolio. In the 2007 Integrated Energy Policy Report (IEPR), the California Energy Commission (CEC) found that "*conventional petroleum fuels will be the main source of transportation energy for the foreseeable future… California must address its petroleum infrastructure problems and act prudently to secure transportation fuels to meet the needs of our growing population*" (CEC 2007b). CEC stated further that "*This should be viewed as a strategy to allow time for the market and consumer behavior to adjust to alternative fuels and transportation choices. During this transition, California must be innovative and aggressive in finding more ways to make increased efficiency, greater renewable fuel use, and smart land use planning the most desirable consumer options*" (CEC 2007b). Thus, the proposed Project would help meet California's stated needs for transportation energy facilities by providing critical infrastructure called for in the CEC's Integrated Energy Policy Reports since 2007 In the 2007 IEPR the CEC recommends that California continue with

[1] "The Renewable Fuel Standard program will increase the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022" http://www.epa.gov/otaq/fuels/renewablefuels/index.htm

[2] Draft Staff Report. *Transportation Energy Forecasts and Analyses for the 2009 Integrated Energy Policy Report.* California Energy Commission: Sacramento, 2009. (CEC-600-2009-012-SD)

improving critical petroleum product import infrastructure, as well as related storage and onshore transportation facilities (CEC 2007a; CEC 2007b; CEC 2007c). The proposed Project directly addresses part of this stated need.

1.2.2. Development Process

Targa has completed the feasibility study and are now in the preliminary design and environmental review process to obtain the Stockton Port District Lease for the termainal/tank farm site and Letter of Agreement for usage of Berth 9.. Targa and the Stockton Port District are focused on addressing the environmental issues as effectively as possible. Targa is leading the industry with a 21st Century approach to reducing environmental impacts through state-of-the-art design, construction, and ongoing operations. The proposed project will incorporate a number of features to protect the environment. They include:

- The Targa facility will allow larger volumes (barge, tanker, unit train, pipeline) to discharge their entire cargo at one time thus eliminating the need for multiple trips of smaller tankers, or trucks for the same amount of product. In addition, the pumping time, for the equivalent amount of product, will be significantly shortened. By eliminating small tankers total emissions in the region will be reduced.
- The facility will operate under a permit issued by the San Joaquin Valley Air Pollution Control District, (SJVAPCD) that includes an emissions cap.
- The use of high capacity pumps and large-diameter pipeline will assure maximum offloading rates, thus reducing the time the tanker/barge remains in port which results in less tanker/barge emissions.
- Alternative Marine Power (AMP) (Cold Ironing) facilities or equivalent technology will be constructed so that properly equipped tankers/barges can use the technology and minimize emissions while at the berth.
- Electric-powered shore-side pumps will be installed to move the product through the pipeline, thereby minimizing the use of the tanker/barge pumps and reducing fuel usage and emissions from the tankers/ barges.
- Sufficient new tankage to receive the entire cargo of a large tanker/barge or unit train without delays due to lack of receiving capacity.

Initial throughput at the start of operations is expected to be approximately 55,000 barrels per day, but throughput is expected to increase in later years to meet regional demands and changes in fuel characteristic requirements to meet environmental goals. Project throughput will be regulated by emission caps in the Permit to Operate issued by the SJVAPCD. Throughput in the future will also be dependent on a number of factors including: future regulatory requirements, port tariffs, transportation fuels availability and price, and regional demand for fuels.

1.2.3. Distribution of Petroleum Products

Various products will be shipped into Targa Stockton Terminal by tankers, barge, product pipeline, truck and rail to the storage facility. Targa's customers will then instruct Targa to deliver it to the customer's facilities for further refining or distribution and final use. Delivery of customer's products will have a multi-modal choice depending on quantity of product required for transport and final destination: product pipeline, tanker/barge marine transport, truck, and rail.

1.2.4. Regional Context

The proposed Project site is located in the eastern area of the Port of Stockton adjacent to the Pacific Ethanol Plant. The Port consists of approximately 2000 acres of land for industrial development. The Port is administered by the Stockton Port Commission under the legal authority of the California Harbors and Navigation Code, Chapter 2, Article 6240.3. The Stockton Port Commission is charted to develop and operate the Port to benefit maritime uses, and it functions as a landlord by leasing Port properties to more than 100 tenants. The port currently accommodates terminals for NuStar, and Tesoro. The port also contains alternative fuels companies such as Pacific Ethanol and Community Fuels. The port is located 75 nautical miles from the Golden Gate Bridge, one mile from Interstate 5, and rail service provided by two transcontinental railroads, Union Pacific, and Burlington Northern Santa Fe. The port is also serviced by a petroleum product pipeline operated by Kinder Morgan.

1.2.5. Project Setting

The proposed Project is located on the Pacific Ethanol site which is encircled by a rail spur that services Pacific Ethanol corn unit trains. The project site is higher in elevation by approximately 5 to 10 feet compared to the surrounding area and was created by dredge material disposal. To the north and west of the proposed project site is the City of Stockton Police Training Facility and Pistol Range. Beyond the San Joaquin River to the northwest of the proposed project site is Rough and Ready Island. To the southeast of the proposed project site is the City of Stockton storm water retention basin and Sewage Treatment Plant. North of the proposed project site are terminals for NuStar and Tesoro, Figure 1-3: Project Setting provides a map of the surrounding activities to the proposed Project site.

1.3. Purpose of Report & Organization

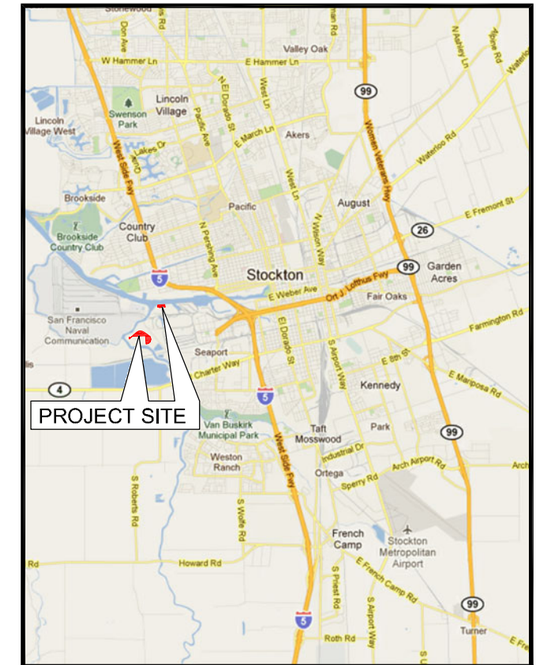
This report presents the basis for the detailed design and engineering for the construction and California Environmental Quality Act (CEQA) environmental evaluation of the Targa Stockton Terminal (TST). This report provides a design basis to define and develop the petroleum storage and terminal facility equipment and systems required to meet the operating needs of the TST. The design basis includes the development of the terminal site plan. The following criteria, systems, and equipment descriptions are included in the design basis section of this report:

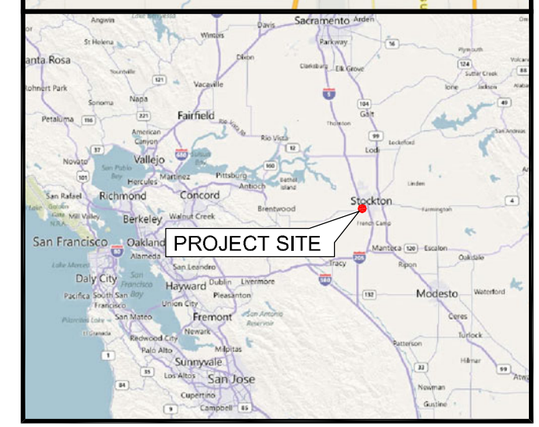
Design Daily Throughput	Site Improvements
Pipelines	Stormwater Runoff Plan
Terminal Receiving Facilities	Oily Water Separator
Storage Facility Capacities & Design Requirements	Fire Protection Plan
Loading Capacities & Design Requirements	Electrical Power Requirements
Terminal Pumps	Instrumentation and Control
Additive Systems	Cathodic Protection
Truck Loading Vapor Recovery Unit	Site Structures
Terminal Piping Systems	Site Buildings

The report also includes a preliminary site layout plan, aerial photo site plan, preliminary grading plan and topographical map, site elevation key plan, views at completion of construction, truck and trailer loading rack arrangement, rail loading rack arrangement, stormwater classification map, contact water to oily water separator plan, and project description.

The report is organized into major technical sections as follows:

- Section 2.0: *Project Description Summary*, identifies probable project facilities considered in the CEQA Initial Study, Technical Studies, and a general site plan.
- Section 3.0: *Project Design Basis*, presents basis for detailed design, engineering, and construction.
- Section 4.0: *Codes, & Standards, Governing Design & Construction*.
- Section 5.0: *Project Drawings and Plans*





LEGEND:

PROJECT SITE-TARGA TERMINAL

PROJECT SITE-TARGA MARINE TERMINAL

REV.	DESCRIPTION	BY	APP.	CHKD

TRC

REGIONAL LOCATION MAP

DATE:	SCALE:
BY:	FIGURE: 1-1

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

REV.	DESCRIPTION	BY	APP.	CHKD

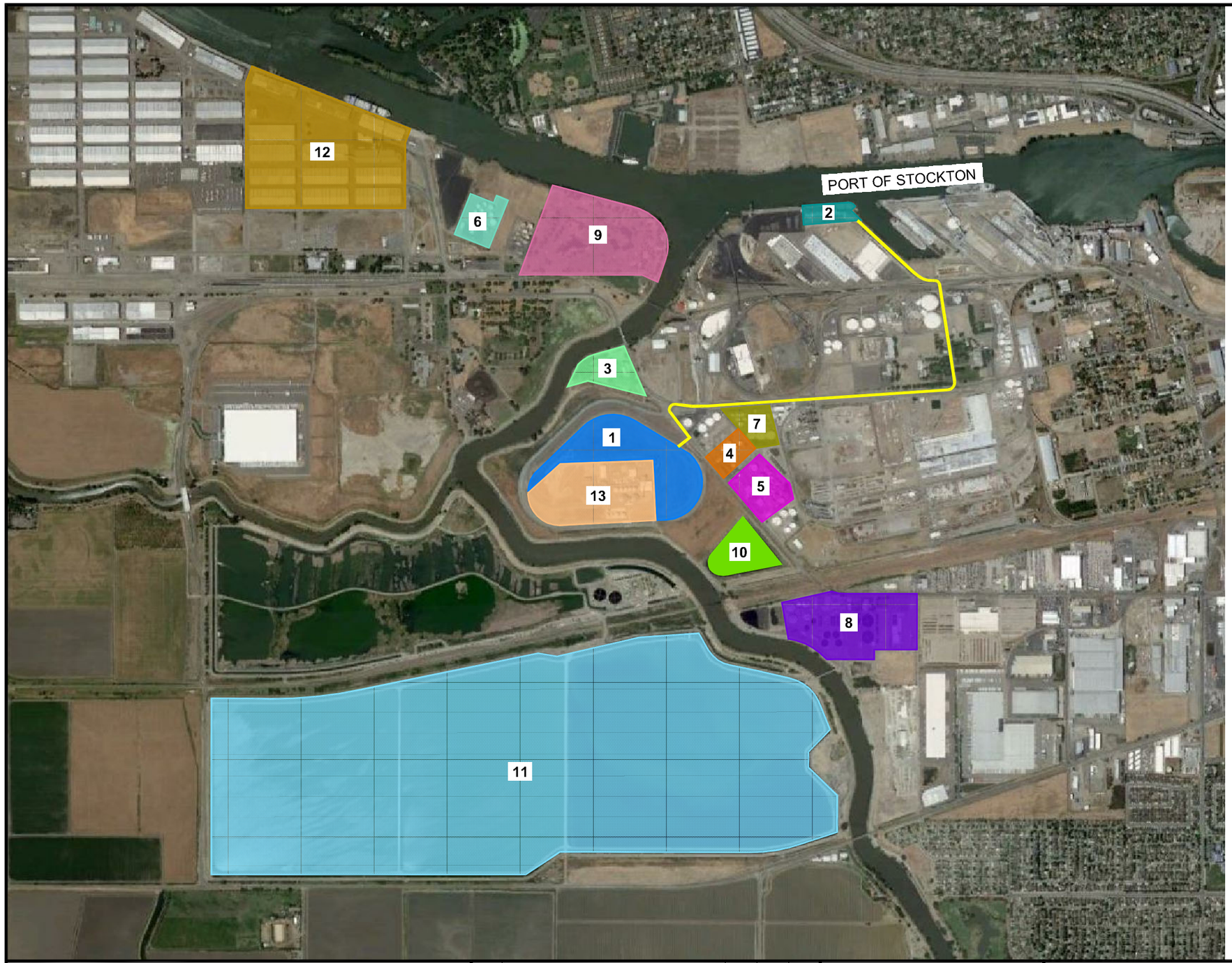
TRC

ASSESSOR'S MAP

DATE:	SCALE:
BY:	FIGURE: 1-2

TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**



0 700' 1400'

SCALE: 1"=700'

LEGEND:

- 1 PROJECT SITE-TARGA TERMINAL
- 2 PROJECT SITE-TARGA MARINE TERMINAL
- 3 STOCKTON PD TRAINING RANGE
- 4 TESORO TERMINAL
- 5 NU STAR
- 6 SHELL
- 7 BUCKEYE
- 8 SEWAGE TREATMENT
- 9 LYONS GOLF COURSE
- 10 STORM WATER RETENTION BASIN
- 11 WASTEWATER DISPOSAL BASIN
- 12 ROUGH AND READY ISLAND HISTORIC NAVAL BASE
- 13 PACIFIC ETHANOL
- SHIP LOADING/UNLOADING PIPELINE

REV.	DESCRIPTION	BY	APP.	CHKD

TRC

PROJECT SETTING

DATE:

SCALE:

BY:

FIGURE: 1-3

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

2.0 Project Description Summary

2.1. Project Facilities

This section describes the Targa Stockton Terminal Project (TST) as may be built-out to include the following major components: Deep Water Channel Berth, Pipelines, Tank Farm Facilities, and Loading Rack Services. This section provides an overview of potential terminalling and storage facility development at build-out, and summary of project elements. This section provides a brief summary of the key physical elements and operational parameters of the project.

2.1.1. Project Summary

The proposed site of the TST, which consists of one 19.92 +/- acre area, is located on the north and east side of the 30 acre Pacific Ethanol lease within the Port of Stockton. It is the intention of Targa to lease the area directly from the Stockton Port District for a period of 75 to 80 years. This project site boasts a number of resources including Kinder Morgan common carrier petroleum pipeline access; rail and waterfront access; a PG&E electrical substation; fire safety facilities; and other improvements which lessen necessary spending on infrastructure development for this type of project. The proposed project site would provide enough area for the initial facility, as well as for future expansion when required.

Should the Board of Port Commissioners elect to approve the project, mitigation measures contained in the CEQA document adopted to approve the project will become part of the lease. Enforcement of these lease measures shall be through reporting, and conformance actions.

The terminalling and storage facility is planned for 20 petroleum product tanks with a range of tank sizes from 10,000 to 80,000 bbls with a total storage capacity for the facility of 850,000 barrels. The proposed project will provide loading rack services as a distribution point for a large variety of petroleum products. Operating at an opening design capacity the proposed facility would move some 55,000 bbls/day requiring between 300 and 305 truck trips a day. The maximum truck loading capacity of the TST is 576 trucks per day with 132,613 bbls/day of product moved.

2.1.2. Deep Water Channel Berth Facility

Berth

The proposed Project would not require any dredging of the deep water channel to allow barge and ship/tanker vessels as the Port is equipped to accommodate up to Panamex-size vessels fully loaded sailing at high tide. The waterway has no width restriction, and will handle 45,000 to 55,000 ton class ships fully loaded. Up to 80,000 ton class vessels can transit the channel partially loaded.[3] The proposed Project would require Unloading systems be installed at the docks and a connecting pipeline from the Port's dock facilities to the terminalling and storage site.

The new berth improvements would be designed to receive petroleum products from marine vessels and transfer the product to the TST via a new 16-inch diameter, high-volume pipeline. The terminal would be operated so as to minimize the time each marine tanker or barge remains at the berth and would do so with a combination of high capacity pumps, large diameter pipeline, and adequate storage capacity in the tank farms.

Targa is proposing modifying the Port of Stockton's existing berth 9 to accommodate marine shipments of petroleum products to the TST(see Figure 2-2: Berth Layout Plan). Targa will make the necessary improvements at the berth 9 to accommodate safe marine transport of petroleum products which will include: mooring dolphins with quick release hooks and power capstans; mooring and fendering system; offloading and loading arms; an electric motor driven derrick cargo crane; a davit crane (boat lowering crane); 4000 feet of spill boom storage; low impact area lighting systems; marine structure cathodic protection corrosion prevention systems; navigational lighting systems; cable trays, wiring, instrumentation and controls, and grounding systems. The engineering and design for the berth improvements would be based on the "Maritime Oil Terminal Engineering and Maintenance Standards," (MOTEMS) Chapter 31F, Title 24, Part 2 California Code of Regulations, promulgated by the California State Lands Commission, 2004. Details of the improvements for the berth, and mooring/fendering system will be developed further during the detailed design phase of the proposed project after Lease Approval and Berthing Agreements with the Stockton Port District.

Offloading / Loading Arms

Targa proposes two 16-inch Double Counter Weighted Marine Arms (DCMA) for loading and offloading. The DCMAs are the articulated pipes that connect a ship or barge and the berth's piping system. These numbers could vary based on the specific dimensions required for Berth 9 application. A fixed control station would be developed in a strategic location to provide good visibility, and wireless handheld control stations for operator mobility. The arms will be equipped with Quick Connect/ Disconnect Couplers (QC/QDs) at the manifold.

Containment Curbing and Sump System

All deck areas on the Berth that would be subject to potential leaks, spills, drips from equipment, pipe flanges, pumps, loading arms, valves, etc… will be contained within a 6 inch high curbed area. Rainwater falling into this area would be collected and drained to a sump. Pumps would be installed to pump the sump water to the TST water treatment oily/water separator and discharge pursuant to an NPDES permit.

Piping, Pumps, and Valves

All piping on the Berth, within the Port of Stockton and the TST will be API Spec 5L line

[3] http://www.portofstockton.com/

pipe, standard XS wall for the large lines, and Sch 40 or Sch 80 for the smaller lines. Piping will be supported above deck on guided or anchored supports. Pumps with 125 gpm, 20 horsepower, positive displacement, 150 psig discharge dockside pumps will be utilized for the arms. Two 1500 horsepower pumps will be utilized to move product from Berth 9 to the Tank Farm or from the Tank Farm to Berth 9. Most of the valves on the berth deck will be gate valves, while fire water valves will be the outside stem and yoke type. Check valves will be used on the various lines in the system to prevent backflow. Since fuel lines would be bidirectional, the line would have a two-way valve station with opposite facing check valves.

Berth Fire Prevention, Detection, and Suppression System

Per MOTEMS Section 3108F.2, a site specific Fire Protection Plan will be prepared as part of the Fire Hazards Analysis and Risk Assessment to determine final design requirements. Fire protection systems will be designed in accordance with applicable Port, City, and State of California Fire Codes as well as the National Fire Protection Association (NFPA). Devices capable of detecting the presence of open flames (Flame Detectors) would be installed at the berths. The flame detectors would be positioned to cover strategic areas, such as around motorized pumping areas, and the berth loading dock. The flame detectors would be tied to a flame detector control panel. Upon detection of a fire, the flame detectors would automatically trigger a fire alarm signal.

2.1.3. Storage Tanks

The site plan layout for the proposed tank area is shown in Figure 2-1: General Site Plan. Table 2-1 also contains detailed characteristics of the site. The tank farm would have a total tankage of 850,000 bbls of storage capacity in 20 tanks on a 17+/- acre lot and would include containment walls and manifolds; most piping within the tank farm would be above ground.

Table 2-1: Tank Farm Site Descriptions

Component	Proposed Tank Farm Site
Parcel Size	19 +/- Acres (867,715 Sq Ft.)
Tanks (internal floating roof)	Four 80,000 bbl Eight 50,000 bbl Five 20,000 bbl Three 10,000 bbl
Vapor Recovery	Vapor holding tank, vapor compressor, and PURGIT closed loop vapor control system
Pumps	Transfer rack pumps with variable frequency drives, vertical turbine transfer pumps mixing pumps, tank proportioning pumps, sump pumps and pipeline transport pumps from berth to tank farm.
Pipeline Pigging	Pipelines will be piggable.
Buildings	Office/Control building
Parking	For office/operations and security and maintenance vehicles
Fire-fighting Systems	Firewater main, foam storage and transportation trailer, fire monitors, engine-driven firewater pump
Sewer Connection	City of Stockton sewer system
Security	Perimeter fence, cameras with local or remote monitoring and control
Lighting	As required for safe operation in accordance with local and national regulations

The tank farm would be equipped with a tank close loop vapor collection system to collect emissions generated during tank filling operations when the tank roofs are

being floated. The floating roof, with the primary and secondary seals, would be used to control emissions at all other times. Each system would consist of vapor collection pipe headers, a vapor compressor, vapor bladder tank, vapor discharge headers, and associated controls. The collection systems would transport the vapors to a PURGIT closed loop vapor control system. The floating roof, primary and secondary seals, and vapor collection and control are considered to be BACT for crude oil storage tanks and meet the requirements of the San Joaquin Valley Air Pollution Control District (SJVAPCD) for such tanks. Tank vapors are circulated through PURGIT condensers and back to the tank until it meets regulatory specifications.

All tanks would utilize Best Available Control Technology (BACT) and be BACT compliant as required by the SJVAPCD. BACT is the most stringent emission limitation or control technique that has been achieved in practice or is considered to be technologically feasible. Each tank would have a fixed roof in addition to the internal floating roof. The floating roofs control emissions by covering the product, thus minimizing vapors from forming. As required by SJVAPCD rules, the internal floating roofs would be equipped with primary and secondary seals around their perimeters.

The steel structures included in the proposed Project design would include equipment skids and racks, pipe supports, stiles, loading racks, and the loading rack canopy. Pipe supports, pipeways, and sleepers would be designed to optimize proposed Project operations and maintenance.

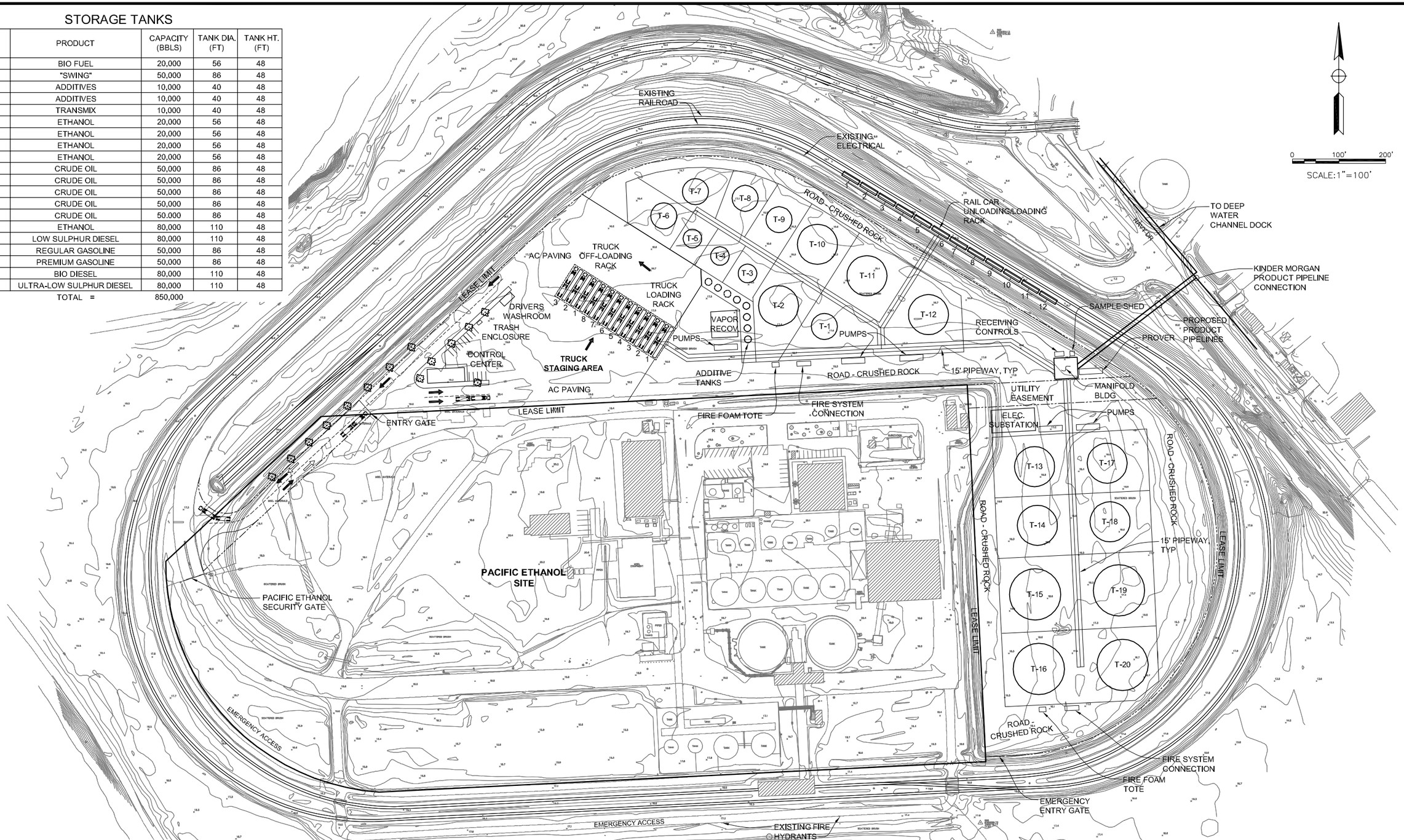
Consideration for future expansion would be included in the design. The use of above-grade piping and conduit runs would be maximized to the extent feasible. Pipeways and sleepers would be designed to allow room for construction of full buildout plus 10 percent expansion. All structures would be designed to comply with applicable American Concrete Institute (ACI); American Institute of Steel Construction, Inc. (AISC); American Welding Society (AWS); and American Society of Testing and Materials (ASTM) Standards.

The proposed Project would utilize a computerized system control referred to as a Supervisory Control and Data Acquisition (SCADA) system receive data from various instruments and measuring devices throughout the terminal and pipeline system and collect them in the Programmable Logic Controller (PLC). The PLC than sends instructions to various pieces of equipment located throughout the Project facilities and along each pipeline connection. Operators and controllers would use the SCADA system to automatically adjust the pressure and flow rate within the system to provide for safe operation of the terminal system.

Under-tank leak detection shown in Section 5: Undertank Leak Detection for Storage Tanks, would be provided for each of the

STORAGE TANKS

TANK NO.	PRODUCT	CAPACITY (BBLS)	TANK DIA. (FT)	TANK HT. (FT)
T-1	BIO FUEL	20,000	56	48
T-2	"SWING"	50,000	86	48
T-3	ADDITIVES	10,000	40	48
T-4	ADDITIVES	10,000	40	48
T-5	TRANSMIX	10,000	40	48
T-6	ETHANOL	20,000	56	48
T-7	ETHANOL	20,000	56	48
T-8	ETHANOL	20,000	56	48
T-9	ETHANOL	20,000	56	48
T-10	CRUDE OIL	50,000	86	48
T-11	CRUDE OIL	50,000	86	48
T-12	CRUDE OIL	50,000	86	48
T-13	CRUDE OIL	50,000	86	48
T-14	CRUDE OIL	50,000	86	48
T-15	ETHANOL	80,000	110	48
T-16	LOW SULPHUR DIESEL	80,000	110	48
T-17	REGULAR GASOLINE	50,000	86	48
T-18	PREMIUM GASOLINE	50,000	86	48
T-19	BIO DIESEL	80,000	110	48
T-20	ULTRA-LOW SULPHUR DIESEL	80,000	110	48
TOTAL =		850,000		



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

GENERAL SITE PLAN WITH TOPOGRAPHIC MAP

DATE:

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BY:

FIGURE: **2-1**

TARGA

FACILITY:

TARGA TERMINAL STOCKTON, CALIFORNIA

fuel storage tanks. The leak detection system would meet the requirements of American Petroleum Institute (API) 650, Appendix I, and Figure I-1. The maximum spacing of drainpipes would be 50 feet, with a minimum of four drainpipes per tank (one for each quadrant). However, two drainpipes may be used for tanks 20-feet or less in diameter. Construction of the membrane liner, a component of the tank foundation, would be of High Density Polyethylene and is depicted in Section 5 Project Drawings.

Based on the soil conditions and geotechnical reports provided by Pacific Ethanol and updated by Targa on the proposed project site the tank foundations may require pilings beneath the storage tanks to support the weight due to the poor soil conditions. The proposed Project area would be constructed to include a layer of substantially impermeable soil, in compliance with U. S. Environmental Protection Agency (EPA) (40 CFR 112) regulations. Earthen dikes would provide the required secondary containment capacity. The proposed Project area would be accessible by means of over-the-containment-dike ramps. Masonry walls would be constructed to provide secondary containment if needed.

2.1.4. Control Building

A Control Building would be situated in the southern section of the proposed TST facility (see Figure 2-1) and would include the control room, an office for the terminal manager, restroom facilities, lockers for the operators, and the terminal control panels and control equipment. The Control Building would include a pre-engineered/ prefabricated steel metal shell designed and constructed to meet the requirements of the California Code of Regulations, Title 24. The prefabricated building would be installed on piers with footings designed and constructed to meet the building requirements of the local, State, and Federal agencies having jurisdiction. Pressure and humidity control would be provided only where the environmentally sensitive electronic equipment is located or where required due to electrical area classification.

2.1.5. Other Buildings

Other buildings at the proposed TST facility may include a maintenance shop, sample shed, and bill of lading building. A maintenance shop would include restroom facilities, lockers for maintenance staff, an office for the terminal maintenance manager, and workshop and storage space. The maintenance shop, bill of lading building, and sample shed would also be pre-engineered/prefabricated steel metal shells designed and constructed to meet the requirements of the California Code of Regulations, Title 24.

Restroom facilities would be designed in a manner similar to that of the Control Building. The workshop area would be provided with a common trench drain centered on the long axis of the shop. Piping from this drain would be routed to the oil/water separator before discharging into the sanitary sewer. The bill of lading building will be adjacent to the control building or the maintenance shop. The sample shed would house the equipment used to store product samples.

2.1.6. Truck Loading Rack Canopy

The proposed Project would include a truck loading rack (or TLR) to facilitate the loading of tanker trucks with trailers. The TLR would be constructed of prefabricated steel to house an overhead pipeway. Each loading bay would be constructed of steel and include product metering and control

equipment and loading arms. A berm would be constructed along the truck entrance and exit sides of the TLR to prevent rainwater from entering the spill containment area. Curbs would be constructed along the other sides of the TLR.

A pump would be provided for off-spec product return and ethanol offloading. There would be individual pumps with individual return lines to transmix, ethanol, and bio-diesel. The pump would have a local start-stop pushbutton station for control. The tanks would all be equipped with a redundant high-level alarm.

2.1.7. Railcar Off-Loading Rack (Loading – Future)

The proposed Project would utilize the existing rails located at the proposed Project site that was improved by Pacific Ethanol. Currently, Pacific Ethanol receives one unit train shipment of corn per week which provides capacity for TST to receive product by rail the remainder of the week. TST anticipates accommodating one unit train every four days with the ability to offload a unit train in 24 hours. The proposed Project would include a railcar off loading system to facilitate the off-loading of rail cars. The rack system can be expanded to load products by adding pumps, product header and a vapor recovery header. The track would have pans and piping connections for twelve (12) unloading positions. The rail off-loading rack would be constructed of prefabricated steel to support the pipeway. Each loading header would be constructed of steel and include product metering and control equipment. (See Section 5 for Rail Loading Plan)

A pump would be provided for the offloading of the rail car (total 12) to TST storage tanks. The pump would have a local start-stop push button station for control. The storage tanks would have a redundant high-level alarm.

2.1.8. Additive Systems

The proposed Project would include several additive systems. Each additive tank would have a dedicated pump skid that would pump to the injectors as required by the specified product load. The additive tanks are sized at 10,000 gallons each to receive an 8,000-gallon truck shipment. The additive injection would be controlled by the truck loading rack control system. The additive tank would have level indication and an overfill alarm switch and horn to alert the driver in case of overfill.

2.1.9. Motor Control Center

The proposed Project would include a motor control center. The motor control center would be installed in a nonhazardous area. The motor control center would have a lighting panel to supply all 120V circuits on the site except the major buildings. The incoming service would originate from the PG&E substation located the north side of the Pacific Ethanol Lease area.

2.1.10. Fire Protection

The fire protection system would provide protection for the storage tanks, the truck loading rack, and the control building. A firewater system loop would be installed with hydrants and monitors spaced around the perimeter of the proposed Project. The system would include a 10-inch firewater loop with hydrants and monitors fed by the city water main via a back flow preventer. The foam system would supply foam solution to the storage tanks and to the truck loading rack.

All storage tanks would be provided with either one fixed foam discharge chamber outlet each or with two or more outlets chambers as may be required depending on tank product designation. The required minimum application rate of fixed foam discharge protection for top-of-seal floating roof tanks is 0.3 gallons per minute (gpm)/ft2, and the minimum discharge time is 20 minutes. The foam solution piping fabrication and installation would comply

with the latest edition of NFPA Standard 11 for low-expansion foam and combined-agent systems.

The Control Building would be equipped with an Inergen fire-suppression system and designed for an assumed 600-square-foot of sensitive equipment space. The Inergen fire-suppression system is an environmentally "green" three-dimensional fire-suppression agent replacing Halon 1301. The systems include critical facilities such as data processing rooms, telecommunications switching facilities; process control rooms; and a non-water-based extinguishing agent that is electrically nonconductive, is safe for use in human-occupied facilities, and has zero ozone depletion and zero atmospheric lifetime. The system would include four discharge nozzles, heat-detection sensors, a control panel, and a 15-square-foot closet to house seven product cylinders.

The emergency deluge system would consist of two combination emergency showers, eye-face wash units, and drench hose units located at the north side of the truck loading rack. They would be provided with tempered water, freeze protection, and controls. The firewater line, fire connections, hydrants, valves, and pipe fittings would comply with the latest edition of NFPA Standard 24 for private fire service mains and their appurtenances. All fire-protection systems would be required to meet the requirements of the Uniform Fire Code, National Fire Protection Association (NFPA)

Standards:

- NFPA 30: Flammable and Combustible Liquids Code;
- NFPA 11: Low-, Medium- and High-Expansion Foam;
- NFPA 13: Installation of Sprinkler Systems;
- NFPA 16: Installation of Foam-Water Sprinkler and Foam Water Spray Systems; and
- NFPA 24: Installation of Private Fire Service Mains and Their Appurtenances.

2.1.11. Lighting

Photocell-controlled overhead lighting would be provided for the proposed Project, truck loading rack, and general area lighting. General area lighting would be provided for railcar offloading and the new Project access road. Metal halide lighting is proposed for good color rendition.

2.1.12. Security

Cameras would be installed for security and monitor rack loading. They would connect to a monitor and digital video recorder in the Control Building. A camera would be placed on each load lane, the entry and exit gates. Truck entry and exit gates would be controlled. Public access would be allowed to the front of the Control Building only and not to the interior of the facility.

2.1.13. Pipeline Supply Connections

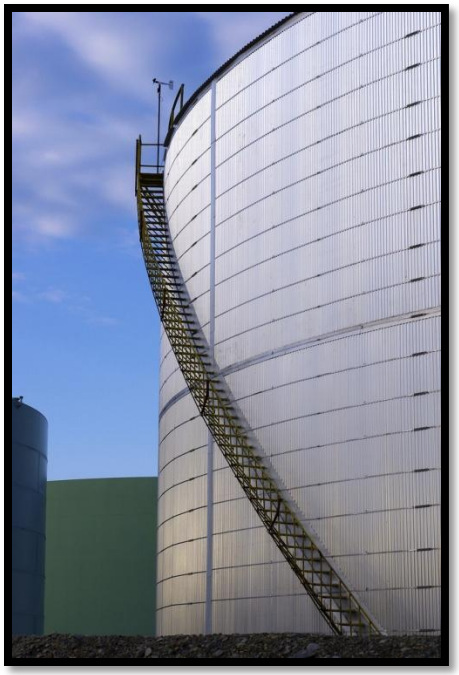
Petroleum products would be delivered to the proposed TST by means of connections with existing or proposed pipelines: 1) the Kinder-Morgan pipeline and 2) the Deepwater Channel Port Facility marine connection pipeline (Second Phase of proposed Project taking delivery from barge or tanker). Large portions of petroleum products delivered to the TST will be by one of the two pipelines. The balance of the petroleum receipts would originate from rail and truck shipments. Kinder Morgan Energy Partners (KMEP) operates the pipelines servicing the Stockton region. The new branch pipeline from the KMEP local distribution manifold to the proposed project site will be operated by Targa. The new branch pipeline extension would be utilized for multiple petroleum products. Product interface would be determined by sampling the

incoming lines for changes in specific gravity. The terminal operator would be responsible for insuring batch changes occur to minimize product contamination.

The receiving line from the pipeline would be equipped with a metering system and connections for a portable prover to calibrate the meter. The incoming line would be connected to the incoming manifold to distribute product through separate branches for unleaded regular gasoline, premium gasoline, diesel, and transmix. The transmix tank would be sized to provide capacity for full flow relief for 15 minutes. Provisions would be made to accommodate the receipt of products from both the Kinder Morgan and the Deepwater Channel Port Facility marine connection pipeline. Receipt of the same product simultaneously may cause measurement issues or impact the quality of the product.

Kinder Morgan Pipeline Connection

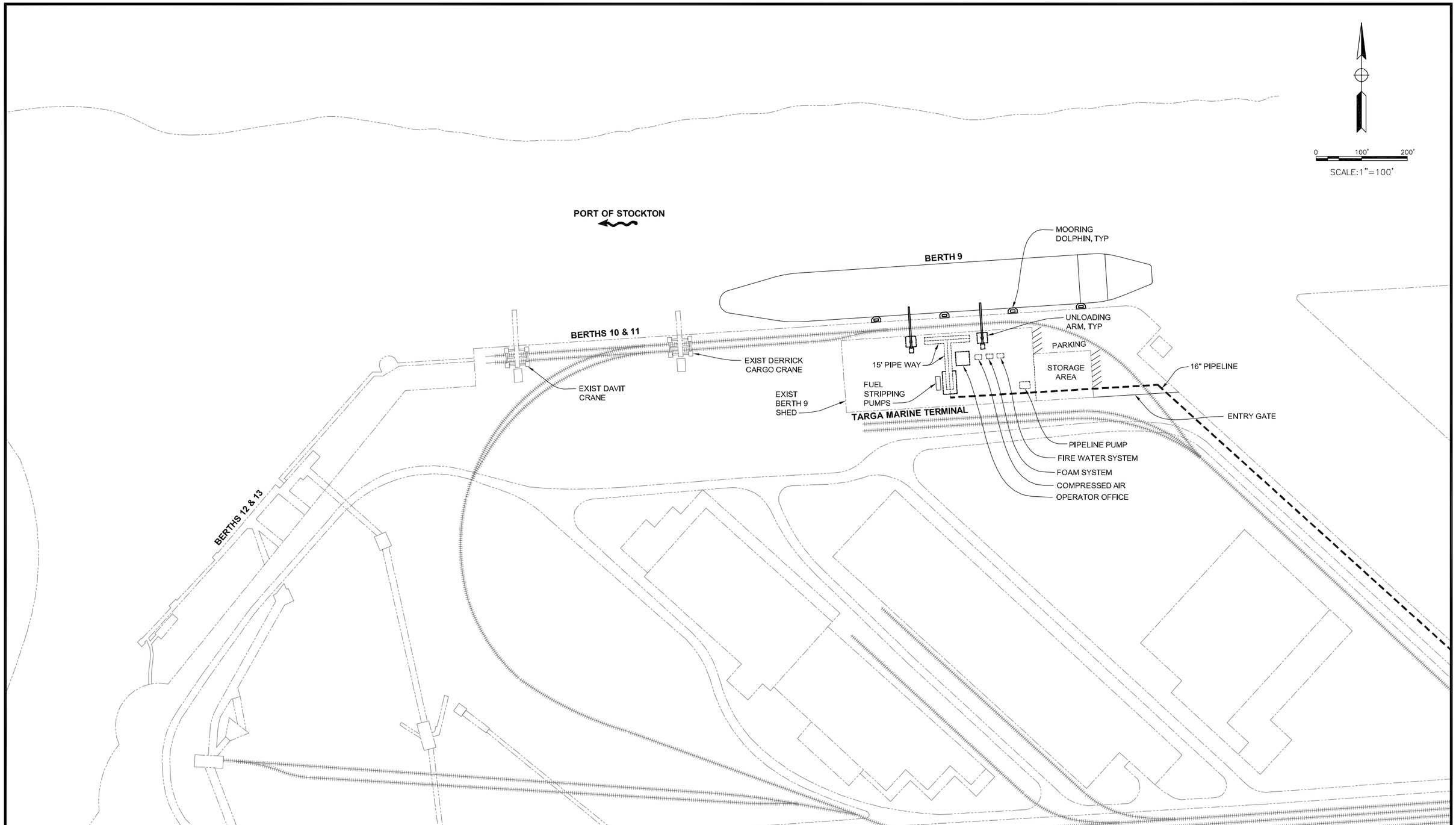
The Kinder Morgan pipeline is located in and along Navy Drive, adjacent to and along the northern border of the proposed Project site. This portion of the pipeline is a 10-inch line originating at Kinder Morgan's Concord Station and ending at Bradshaw terminal in Rancho Cordova, California. It is proposed to connect to the Kinder Morgan line at the distribution manifold which is located directly north of the proposed project at the existing terminal operations along Navy Drive. Based on a maximum flow rate of 4,000 barrels per hour, the branch line size into the proposed project site would be 10 inches in diameter. Figure 2-3: Pipeline Supply Connections, illustrates the pipe connection layout and location.



Although custody transfer will occur at the Kinder Morgan distribution manifold, a turbine meter will be installed to measure the product being received at the terminal. The turbine meter will be calibrated using a portable prover to insure the accuracy of the meter to verify the volume of product being received. The product being received by pipeline will be distributed to one of 11 storage tanks. One of the storage tanks will be designed and used as a "swing tank" where the piping can be easily modified to change the product in the tank. A twenty thousand (20,000) barrel transmix tank will be included in the site to handle "off-spec" products and pipeline transmix. A motor operated isolation valve would be installed on the 10-inch branch at the pipeline to the proposed Project interface.

Deep Water Channel Berth Pipeline Connection

To receive petroleum products from the Port of Stockton dock facilities by barge or tanker ship, a new 3,500 feet pipeline connection would have to be constructed to connect the dock facilities to the proposed Project site. This pipeline would follow the along Port Road 5 from the dock facilities, then along Port Road 13 going south to West Washington Street, then west to Navy Drive to the proposed Project site. (See Figure 2-3: Pipeline Route & Connection Map) The new pipeline could adopt various alignments from the dock since the Port controls the property between the dock and the proposed project site.



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BERTH LAYOUT PLAN

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TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

REV.	DESCRIPTION	BY	APP.	CHKD

TRC

PIPELINE ROUTE AND CONNECTION MAP

DATE:

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BY:

FIGURE: **2-3**

TARGA

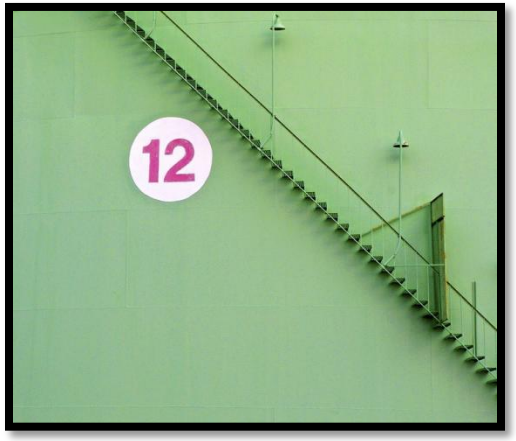
FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

The pipeline would accommodate a maximum flow rate of 10,000 bph. The pipeline would consist of American Petroleum Institute (API) 5L X52, WT 0.250" ERW pipe. The pipeline would require a five-foot permanent easement and a minimum of five-foot of cover above the top of the pipe within City of Stockton streets, a temporary construction easement up to 50 feet in width will be necessary for construction.

2.1.14. Access and Product Offsite Transport

The proposed Project access would be accommodated from the existing Pacific Ethanol access road which connects the proposed Project site at Navy Drive. The proposed Project would create two access points off the Pacific Ethanol access road. One of the new emergency access driveways to the proposed Project site would cross an existing rail spur located along the south side of proposed Project site, and would include all required safety and warning devices. The main access point would be located adjacent to the existing access point for the Pacific Ethanol Plant main gate and would parallel the rail spur on the 100 feet western edge of the exiting Pacific Ethanol Lease which was reserved by the Stockton Port District as an access easement on the Lease. Figure 2-1 provides a schematic of the proposed access points. As shown, two points of ingress and egress to the proposed Project site would originate off the Pacific Ethanol Plant access road. The main access point would provide entry to the proposed Project truck loading rack, which would initially provide a truck staging area just after the security gate for loading truck transports. Truck traffic would be one way and proceed out of the proposed Project north of the truck loading racks and back out of the same entry roadway. The southern emergency access location would be for emergency vehicles only and Targa maintenance vehicles.



2.1.15. Stormwater Runoff Plan

The Port of Stockton has developed a Stormwater Development Standards Plan (DSP). The project is south of Washington Street and within the DSP's East Complex. All stormwater within this complex drains to a stormwater retention basin. During years when the retention basin reaches a high level, stormwater is pumped to the San Joaquin River (Port of Stockton Stormwater Development Standards Plan, Revised April 17, 2006, Page 3). The Port of Stockton DSP specifies a number of Best Management Practices (BMP) requirements that are specific to each drainage zone and are applicable to this project. As part of the Stormwater Runoff Plan, the proposed Project site would be subdivided into areas classified according to the means of handling drips, spills, and stormwater. Runoff from the access roadway would be designed to flow to the Port of Stockton's designated stormwater detention basin. A dike would be constructed around the proposed Project at a sufficient height to contain the contents of the largest tank plus 10 percent of the volume of that tank. The proposed Project peripheral areas, including landscaped areas, paved walkways, crushed-rock roadways, and building roofs, would be drained naturally by percolation into the soil or by surface runoff to the storm-water collection and discharge system maintained by the Port of Stockton. (See Section 5: Preliminary Grading Plan)

The Stormwater Runoff Plan would identify contact areas as those areas where small quantities of product could be dripped or spilled. (See Section 5: Stormwater Classification Map) These may include small tanks, process or product handling equipment, product loading or unloading operations, or maintenance areas. These areas would be curbed or diked as required to contain drips or spills as well as stormwater in the amount required by the Port of Stockton. After a storm event, the water would be tested. Tested water meeting the quality requirements would be discharged to the drainage-collection system. Contaminated water would be discharged to an oily-water separator, or removed by vacuum truck or other means. Stormwater from the truck loading rack canopy and paved areas would be discharged to the Port of Stockton storm-drain system.

The ethanol unloading and loading area would be treated as a contact water area. Drips, spills, and stormwater would be gathered in pans installed under the railroad tank cars. Stormwater collected from the pans would be discharged into the oil-water separator or removed directly by a vacuum truck for treatment offsite. Spills of ethanol in excess of the pans' capacity would drain by gravity to an earthen-berm containment area located around the off-loading area.

2.1.16. Oil-Water Separator

The proposed Project would include an underground oil-water separator installed near the drainage outlet for the project area in the eastern portion of the site. There would be a product pump and a water pump controlled by level switches in the oil-water separator. The product pump would pump to the transmix tank, and the water pump would pump to the sewer. The oil-water separator would be double walled and include leak detection installed in the annular space. The facility would include an alarm for leak detection. (See Section 5: Contact Water to Oily Water Separator)

2.1.17. Emergency Shutdown System

The proposed Project would include an emergency shutdown system of hard-wired pushbutton switches. The emergency shutdown system would shut down all truck loading rack loading by means of a permissive to the rack control system. This would close all control valves on the truck loading rack and remove the product and additive pump signals. It would include a hard-wired shutdown for all pumps in the proposed TST, which would stop all loading and offloading.

2.1.18. Cathodic Protection

Although a majority of piping would be above grade, all buried piping and tank bottoms will be protected by a cathodic protection system.

2.2. Terminal Operations

2.2.1. Refined Product Storage

The refined product storage to support the pipeline operations will consist of 20 storage tanks, including:

- Four (4) 20,000 barrel ethanol tanks;
- one (1) 80,000 barrel ethanol tank;
- one (1) 20,000 barrel bio-fuel tank;
- one (1) 50,000 barrel "swing tank";
- two (2)10,000 barrel additives tanks;
- one (1) 10,000 barrel transmix tank;
- five (5) 50,000 barrel crude oil tanks;
- one (1) 50,000 barrel unleaded regular gasoline tank;
- one (1) 50,000 barrel unleaded premium gasoline tank;
- one (1) 80,000 barrel low sulfur diesel tank;
- one (1) 80,000 barrel biodiesel tank;
- one (1) 80,000 barrel ultra-low sulfur diesel tank;

Refined and blended product from the storage tanks will be shipped from the facility by truck to the local markets. To load

the trucks, an eight lane loading rack has been included in the facility design. Each lane is designed to load trucks at 500 gpm to 600 gpm to both the front loading arms and the rear loading system. Based on these loading rates, trucks can be loaded in under 10 minutes (actual loading times). Adjusting for set-up time and connections to the system, we estimate a maximum of 3 trucks per hour per lane or 4,320 bbls per hour. The eight lanes are capable of loading approximately 103,680 bbls per day or 3,110,400 bbls per month.

The racks will have dedicated lines for biodiesel ultra-low sulfur diesel, unleaded regular and unleaded premium gasoline. Mid-grade gasoline will be blended at the rack to maximize utilization of the storage capacity available.

Renewable products such as ethanol and bio-fuels will be blended at the rack utilizing a ratio-blend system. Proprietary additives will also be added at the rack to conform to brand requirements for specific customers. One loading arm at one of the lanes will be provided to load neat ethanol and biofuels for distribution to other terminals.

A separate offloading system will be provided away from the loading rack to off load trucks with ethanol or bio fuels to storage or off-spec products to transmix.

2.1.1. Ethanol Fuels

The ethanol will be shipped to the proposed project site by unit train. The unit train will consist of 96 to 100 rail tank cars each holding approximately 30,000 gallons (715 bbls) of ethanol. The rail off-loading system consists of 12 spots to off load 12 rail tank cars simultaneously. The system will consist of a header and a surge pump capable of transferring the product from the cars to storage at a rate of 4,000 bph. At this rate, the cars can be emptied in 2 hrs and 10 minutes allowing another hour for connecting and disconnecting the cars and spotting the next set of cars. With the current arrangement, it will take approximately a 24 hour time frame to offload a unit train. A spur track parallel to the main track is an option that can be evaluated to allow off-loading of products from twice as many cars shortening the set-up time and increasing efficiency.

Ethanol from the rail cars is pumped and metered into one (1) 80,000 barrel bulk tank. From the bulk tank, the ethanol is transferred to the day tanks. The day tanks consist of:

- one (1) 50,000 barrel ethanol tank,
- four (4) 20,000 barrel ethanol tanks;

Ethanol from the day storage tank is pumped to the rack for blending with gasoline products at the truck rack or loaded on trucks neat to be shipped to other terminals in the area. With design through-put of 50,000 bpd, typical product mix indicates approximately 40,000 bpd would be gasoline products. At a 10% blend ratio, 4,000 bbls of ethanol would be blended daily. Based on these consumption rates, two unit trains per month will meet the facilities need to blend ethanol. Additional unit trains may be required depending on the volume of neat ethanol shipped to other terminals for blending.

The rail off-loading system will be designed to accommodate future expansion for loading fuels into rail cars for distribution to other parts of the state by rail. To accomplish this, separate headers will need to be added to the loading area for each product to be loaded. In addition to the fuel header, a vapor recovery header would be added and routed to the vapor holder for processing through the incinerator. In order to load products, additional pumps and meters dedicated to the loading operation would be needed to avoid interruption of the truck rack operation while rail cars are being loaded.

2.1.2. Crude Oil

The crude oil from the Bakken Formation in North Dakota will be shipped to the proposed project site by unit train. The unit train will consist of 96 to 100 rail tank cars each holding approximately 30,000 gallons (715 bbls) of Bakken crude oil. The rail off-loading system consists of 12 spots to off load 12 rail tank cars simultaneously. The system will consist of a header and a surge pump capable of transferring the product from the cars to storage at a rate of 4,000 bph. At this rate, the cars can be emptied in 2 hrs and 10 minutes allowing another hour for connecting and disconnecting the cars and spotting the next set of cars. With the current arrangement, it will take approximately 24 hour time frame to offload a unit train. A spur track parallel to the main track is an option that can be evaluated to allow off-loading of products from twice as many cars shortening the set-up time and increasing efficiency.

Crude oil from the rail cars is pumped and metered into five (5) 50,000 barrel bulk tanks. From the bulk tanks, the crude oil is transferred to the deep water channel berth by pipeline for loading to barges. Barges will transport the crude oil to refineries in Rodeo, Richmond, Benicia, and Martinez. It is anticipated two unit trains per month will move Bakken crude oil through the facility to refineries in the San Francisco Bay Area.

2.1.3. Bio Fuels

The bio fuels will be shipped to the facility by rail or truck. The bio fuel rail offloading system will be similar to the ethanol system having 12 spots to off-load 12 rail cars simultaneously each rail tank cars holding approximately 30,000 gallons (715 bbls). The system will consist of a header and a surge pump capable of transferring the product from the cars to storage at a rate of 4,000 bph. At this rate, the cars can be emptied in 2 hrs and 10 minutes. The bio fuel will be metered and transferred to one of three 10,000 bbl storage tanks.

Product from the 10,000 bbl storage tank is pumped to the rack for blending with the diesel products at the truck rack or loaded on trucks neat to be shipped to other terminals in the area. With design through-put of 50,000 bpd, typical product mix indicates approximately 10,000 bpd would be diesel products. At a 20% blend ratio, 2,000 bbls of bio fuels would be blended daily. Based on these consumption rates, two 24 cars trains per week will meet the facilities need to blend bio diesel. Additional cars may be required depending on the volume of neat bio fuels shipped to other terminals for blending.

2.1.4. Truck Off-loading System

The product off-loading systems consist of three separate spots similarly designed to receive product from a truck and pump it to storage. The three systems are design to handle the following products:

- Bio fuels
- Ethanol
- Off spec product

Each of the systems consist of a vertical can pump, an air eliminator and a meter. Product from the trucks is drained into the vertical can pump and pumped through the air eliminator and the meter before it is shipped to storage in the bio fuel tanks, ethanol tank, or the off spec (transmix) tank. The pumping system designed to pump at 300 bph will allow transfer of a 100 bbl truck in twenty minutes. The transmix off-loading system will serve dual purpose designed to off load trucks or load transmix for transporting to the refineries for processing. Vapor recovery connections will be incorporated in the offloading system to capture vapors from transmix loading operations and the air eliminators.

2.2. Project Objectives

The proposed Project would support the Pacific Ethanol Plant, and importing of ethanol to California with terminal facilities and reduce the handing of ethanol in the

product mix process. Meet storage and terminalling facilities demand for renewable fuels as mandated by state and federal policy for the region. Consolidating the storage capacity in one modern facility reducing the environmental and safety risks associated with transporting and handling petroleum products. The following are some of the identified objectives for the Project by Targa:

- Construct a modern petroleum products terminal that would allow the consolidation of the petroleum product throughput of existing, older, non-conforming petroleum terminals situated within the area;
- Accommodate the planning goals and policies of the City of Stockton and Port of Stockton by developing port related facilities within the Enterprise Zone and Redevelopment Area;
- Support Pacific Ethanol with terminal and storage facilities.
- Construct a facility that would allow Targa to take advantage of the unique availability of rail, highway, deep water channel/dock facilities, and pipeline transportation systems at the Port of Stockton, thereby minimizing the need to transport petroleum products and ethanol by truck;
- Construct a facility using Best Available Emission Control Technology (BACT) that would significantly reduce facility air emissions;
- Construct a facility that would allow for future growth as the area population increases; and
- Develop a "state-of-the-art" storage facility, thereby reducing the environmental and safety risks associated with transporting and handling petroleum products.

2.3. Construction

2.3.1. Overall Project

Project Schedule, Workforce, and Construction Hours

Targa anticipates construction could begin in April 2012. Construction would last about 12 to 14 months and would be completed by the second quarter of 2013 or third quarter of 2013. Project construction would require approximately 100 temporary construction workers beginning in 2012 and continuing into the third quarter of 2013.

Construction Traffic

Approximately 80 to 100 construction personnel would be employed during peak construction activities. Such employment would add about 75 automobiles to local-area traffic under peak conditions. Construction activities would occur within a ten-hour workday and would generally take place between the hours of 7 a.m. and 5 p.m. Temporary off-street parking for construction personnel would be located on adjacent property. It is not anticipated that excessively oversized loads would be required except for the delivery of the tank steel and the truck loading rack skids. Property adjacent to the terminal would be used for the staging of equipment such as piping, valves, and fittings. The storage site would be temporarily fenced. Approximately two workers would be involved in loading, unloading, and security, with about 8 to 10 trucks per day using this staging site during peak construction.

2.3.2. Targa Stockton Terminal Construction

Construction of the TST would include final grading of the site, and placement of foundations and infrastructure. Construction would begin with site work grading, cutting, and filling to ensure that the site drained

properly into the surrounding drainage system.

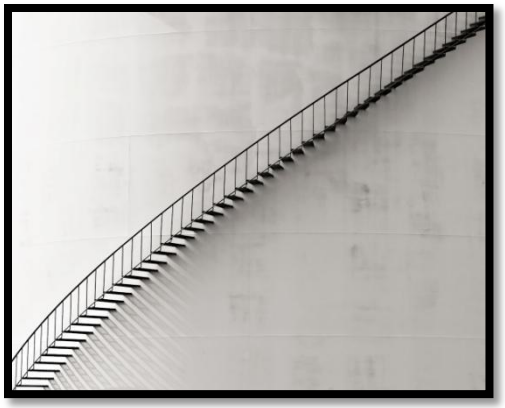
Facilities that would be constructed above ground would include the storage tanks, control and maintenance, and motor control buildings; the truck loading rack; the railcar loading rack; the access road; the fencing; and the additive storage structures. Each of these structures would be single story, with the storage tanks being the tallest structures at 48 feet. Concrete and steel would be the primary construction materials for the storage facilities. Major process piping and storage tanks would be made of steel. The major construction phases for the TST would include:

- Rough Grading and Site Staking
- Excavation and Site Work
- Structural Facilities
- Electrical, Process Mechanical, and Instrumentation
- Paving and Striping
- Architectural and Landscaping
- Startup and Testing
- Rough Grading and Site Staking

Survey staking would be used to define the limits of the proposed terminal site. Underbrush, and overgrown vegetation that would interfere with construction and operation of the Project would be removed from the site. No tree clearing would be necessary. The estimated time to complete this construction phase is three to four weeks.

Excavation and Sitework

After the proposed project site has been cleared of underbrush, grading would begin. Following rough grading, additional excavation would bring the site to final grade and prepare the soil for underground piping and structural slabs. The areas under the storage tanks and truck loading rack would require excavation and re-compaction. Site work would involve installing large underground pipes (6-inch diameter or larger), manholes, structural foundations, curbs, gutters, and sidewalks. Excavation for concrete foundations, retaining wall footings, and underground drainage pipes would be performed with excavators and/or backhoes. This construction phase is expected to last six to eight weeks.



Structural Facilities

This phase would consist of compacting and preparing the soil for all structural facilities and developing piers for foundation systems. Prior to pouring concrete, structural forms, rebar, and conduits would be installed for each facility. After the concrete is poured, it would be finished and cured before the forms are removed. After the concrete footing, slab, and walls are poured, the overhead structural steel and roof decking would be erected. This construction phase is expected to last up to five months.

Paving and Striping

All parking areas, roads, and designated locations would be paved and striped. Paving would be performed incrementally throughout the site area as large construction and non-rubber tread equipment is removed from the site. This phase of construction is expected to last three to four weeks.

Electrical, Process Mechanical, and Instrumentation

After the structures have been erected and roofed, electrical equipment (e.g., machinery control consoles, switchboards,

lighting, etc.) would be installed. Site work such as installing pull boxes, conduits, and cables would continue. Process mechanical equipment (e.g., pumps and additive injection systems) would be installed and piped through the TST. Site work would continue, as small-diameter chemical piping would be routed throughout the site. After roofs on buildings and facilities are secured, flow meters, level probes, pressure meters, and other instrumentation (e.g., as process analyzers) would be installed. This construction phase would last from four to six months.

Startup and Testing

This final phase of construction would involve Project personnel (i.e., operators, maintenance crews, and instrumentation specialists) working with the equipment vendors to understand how each piece of equipment would operate and function at the TST. Under Project supervision, the equipment vendors would startup and test the equipment onsite to guarantee that pumps, mixers, gauges, and other operating equipment are functional and able to meet design standards.

2.3.3. Pipeline Facility Construction

Construction of the pipeline would sequentially include right-of-way clearing, trenching, pipe stringing, welding, backfilling, and testing.

Pre-Construction

The construction plan, among other things, would identify specific sites for any equipment-fuel storage required for pipeline construction. In general, equipment-fuel storage sites would be located to provide adequate setbacks from existing water bodies (approximately l00-foot minimum) and water wells (approximately 200-foot minimum). Refueling of construction equipment would take place along the right-of-way (ROW) using absorbent material to create temporary berms around the equipment. Prior to construction, Targa would develop an Emergency Response Plan, Spill Prevention Plan, or similar document, as required by law.

Right-of-Way Clearing

The proposed right-of-way would be cleared and the construction ROW graded to provide for safe and efficient operation of construction equipment and provide space for temporary storage of spoil material. In general, the width of the ROW clearings would be kept to a practical minimum to avoid undue disturbance of adjacent resources. Brush clearing would be limited to trimming and/or crushing in those areas specified by the City of Stockton or Port of Stockton to avoid disturbance of root systems. Where tree clearing is necessary, the ROW boundaries would be flagged, and any specimen trees on the perimeter would be preserved from damage. Where necessary, all brush and other debris cleared would be disposed of in accordance with instructions from the City, Port, or landowner and all applicable laws and regulations.

Trenching

Typically, the installation of pipeline via conventional trenching methods would require the excavation of a six- to seven-foot-deep trench to maintain a minimum of three to four feet of cover. The construction work area is anticipated to require an ROW up to 50 feet wide. A typical trench would range from two to three feet in width. The trench would be excavated using backhoes, ditching machines, and/or track hoes. An exception to the mechanical excavation would be hand-digging using air tools to locate buried utilities, such as other pipelines, cables, water mains, and sewers. No blasting is anticipated. Fugitive dust emissions at the construction site during earthmoving operations would be controlled as needed by water trucks equipped with spray nozzles.

Pipe

Pipe-stringing trucks would be used to transport the pipe in 40- to 80-foot lengths from the shipment point to the pipeline ROW. Trucks would carry the line pipe along the ROW, and side-boom tractors would unload the joints of pipe from the stringing trucks and lay them end to end beside the ditch line for future lineup and welding. As required, coated line pipe would be bent in the field by a portable bending machine to fit the contour of the ditch both vertically and horizontally. Construction ROW conditions may require that prefabricated "shop" bends be used when field bending would not be practical. The pipe would be lifted and lowered into the ditch by an appropriate number of side-boom tractors spaced so that the weight of unsupported pipe would not cause damage to the pipe.

Welding & Inspection

All field-welding would be performed by qualified welders in accordance with Project specifications, including API 1104 (Standard for Welding: Pipe Lines and Related Facilities) and the rules and regulations of the U.S. Department of Transportation (DOT) found in the Code of Federal Regulations (CFR) Title 49 (Part 195 for liquid pipelines). One hundred percent of the welds would be radiographically inspected, exceeding the 10 percent inspection requirement found in CFR Title 49, Part 195 (49 CFR Part 195).

Backfilling

Native material excavated from the pipeline trench would be reused for trench backfilling to the maximum extent possible. Where native material is not suitable for compaction, import material would be used in the backfilling process. Import backfill material may be soil that has adequate structural integrity to allow for proper compaction, sand/decomposed granite, or base rock material as used in road construction.

Testing

Hydrostatic testing would be performed after construction and before startup. Federal regulations (49 CFR Part 195) mandate hydrostatic testing of new petroleum pipelines before placing the line into operation. Pipeline coating would typically be applied at a qualified coating facility before delivery to the construction site. However, field coating (heat-shrink polyethylene sleeves) would be necessary on all field-weld joints made at the site in order to provide a continuous coating along the pipeline. A detection test would be conducted to locate any coating discontinuities, such as thinning or other mechanical damage, that could permit moisture to reach the pipe. All coated pipe, including field joints, fittings, and bends, would be tested and repaired as necessary and before backfilling.

3.0 Project Design Basis

3.1. Design Daily Throughput

The TST will be designed to receive product through the Kinder Morgan existing product pipeline, rail loading and off-loading rack, truck loading and off-loading rack, and Deep Water Channel Dock berth loading and off-loading facilities. The project will include extension of the Kinder Morgan pipeline to the proposed site. Denatured Fuel Ethanol will be sent to the TST from Pacific Ethanol via a product pipeline or by unit train. Crude Oil will be sent to TST by unit train and barge. Throughput, truck movements, train movements, and vessel calls associated with the proposed TST are estimated based on Targa market knowledge and demand projections from customer commitments Targa has at this time, and the reasonable foreseeable capacity of the TST to accommodate product.

Start Up Operations in 2013 with projections in TST Year 2017, 2022, 2027, and 2032.

Element	TST Yr. 2013 Start Up	TST Yr. 2017	TST Yr. 2022	TST Yr. 2027	TST Yr. 2032
Employees	30	30	30	30	30
Truck Loads	300/ day	345/ day	396/ day	576/ day	576/ day
100 Rail Car Unit Train Movements	2/mo.	3/mo.	4/mo.	6/mo.	8/mo.
Tanker/ Barge Calls	2/mo.	2/mo.	4/mo.	6/mo.	8/mo.
Storage Tanks	20	20	20	20	20
Storage Tanks Capacity	850,000 bbl	850,000 bbl	850,000 bbl	850,000 bbl	850,000 bbl
Average Product Throughput	55,000 bbls/ day	103,680 bbls/ day	117,647 bbls/ day	124,629 bbls/ day	132,613 bbls/ day

Table 3-1: Throughput Projections

3.2. General Design Parameters

3.2.1. Deep Water Channel Berth

The Deep Water Channel Berth will be designed to accommodate petroleum product tankers and barges up to, and including, Panamex size tankers and inland waterway barges. Key design features include:

- Berth structures, designed for tankers and barges up to 55,000 dead weight tonnage (DWT), 950 feet long, 107 feet wide and up to 35 feet deep in the water when loaded.
- Mooring load monitoring equipment, designed to sense the strain on the lines securing the ship and warn the terminal operators in advance of any impending problems.
- Quick release hooks, allowing for the safe and timely release of the vessels mooring lines as the ship disembarks.
- Spill protection equipment, including petroleum product spill booms (deployed during tanker offloading operations), utility boats for boom deployment, and easily accessible supplies of emergency oil spill equipment (absorbents, protective clothing, etc.).
- Fire protection systems, designed to supply water and foam to critical equipment on the dock structure and unloading systems.

3.2.2. Vessel Offloading Systems

The vessel offloading system will be designed to discharge tanker and barge cargo's quickly and efficiently, minimizing both vessel emissions and vessel time at berth. The key design features include:

- Large diameter pipelines and transfer systems, allowing tankers and barges to achieve off loading at rates up to 10,000 barrels per hour.
- Electric powered shore-side pumps, designed to reduce tanker/barge energy requirements to offload cargos. This will result in reduced fuel usage and emissions from tankers/barges.
- Alternative Marine Power (AMP) (cold ironing), allowing properly equipped tankers/barges to use on-shore power to minimize emissions.

3.2.3. Terminal Facilities

The Terminal Facilities at TST will be designed to safely and efficiently receive petroleum products and bio fuels from all transportation modes (pipeline, rail, truck, and marine). The key design features include:

- 850,000 barrels of product tankage, sufficient to receive the entire cargo of a tanker/barge, 100 rail car unit train, or pipeline delivery without delays due to lack of receiving capacity.
- Internal Floating Roof (IFR) tanks, utilized for all product storage, designed to reduce emissions through use of primary and secondary roof seals, seals for all IFR penetrations, and installation of a vapor recovery system to collect and destroy vapors generated during drain dry operations.
- Secondary containment systems designed to contain the volume of the largest tank, including provisions for rain and fire water. Systems include high-density polyethylene (HDPE) liners under all tanks and primary and intermediate containment dikes surrounding all tank areas.

- Fire protection systems, designed to supply water and foam to critical equipment on each site. (Terminal Facilities and Deep Water Channel Berth)
- Control and monitoring systems, designed to graphically display the current status of all equipment to the facility operators, alert the operators to potential problems and take corrective actions should abnormal situations arise.

3.2.4. Distribution System

The Distribution Systems will supply petroleum and bio fuel products to customers from the terminal site. Key features include:

- High capacity distribution pumps, designed to supply product to customers quickly and efficiently.
- Cathodic protection (CP) and pipeline coating systems, designed to protect all below grade steel piping against corrosion.
- Integrity assessment systems, designed to allow utilization of all available internal inspection tools (also known as Smart Pigs).
- Leak detection systems, utilizing Computational Pipeline Monitoring (CPM) will be installed for all major pipelines systems. The system will automatically alert the operator when a potential leak is identified, so that appropriate actions can be taken to minimize the spill volume and duration.

3.3. Pipelines

The proposed project will install approximately a 5,000 feet of pipeline systems of new belowground pipelines, allowing transportation of the petroleum products from the Deep Water Channel Dock/Berth and the Kinder Morgan Product pipeline to the TST and ultimately TST Customers. The pipeline system will incorporate the state of the art in seismic design, integrity assessment, and leak detection.

The proposed project pipeline system consists of two major segments:

3.3.1. Kinder Morgan Product Pipeline

The major petroleum product pipeline servicing the TST will be operated by Kinder Morgan. This pipeline is located north of the TST along Navy Drive and is a eight (8) inch line that presently serves all the existing terminals at the Port of Stockton. The following flow rates and Maximum Allowable Operating Pressure (MAOP) are used as the design basis:

- KMP pipeline flow rate to the TST: Maximum 3,250 to 3,500 bph and Minimum 1,000 to 1,250 bph
- The MAOP of the eight (8) inch KMP pipeline is 720 psi.

Based on the above flow rate the branch line size into the TST will be eight (8) inches.

A eight (8) inch valve will be installed upstream of the TST branch to facilitate direct deliveries at full flow of the KMP pipeline. A full flow relief valve will be installed on the pipeline with inlet connection upstream and outlet connection downstream of the eight (8) inch valve. A motor operated isolation valve will be installed on the eight (8) inch branch at the pipeline to TST interface.

Pipeline Design

All KMP branch pipeline would be designed in accordance with the latest edition of the ASME/ ANSI B31.4, "*Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols*". The design, construction, operation, and maintenance of all pipelines are regulated by the DOT under Title 49 of the CFR, Chapter I, DOT, Part 195. Targa anticipates installing remotely operated mainline block valves at the beginning and end of each of the pipeline segments. Each valve would be monitored and controlled from a yet-to-be-determined, project related building.

Construction

The KMP branch connection pipeline to the TST would be installed below ground except for some parts of the TST and Tank Farm. Conventional trenching of the pipeline would occur along Navy Drive to the rail road spur that makes up the northern border of the TST. At the railroad spur, boring and drilling would be the primary method of placing the pipeline underground. All field welding would be performed by welders to the Targa's specifications and in accordance with all applicable ordinances, rules, and regulations, including 26 API 1104 (Standard for Welding Pipe Lines and Related Facilities) and the rules and regulations of the DOT found in CFR Title 49 (Part 195 for liquid pipelines). As a safety precaution, a minimum of one 20-pound dry chemical unit fire extinguisher would accompany each welding truck on the job.

3.3.2. Deep Water Channel Berth Pipeline Connection

Targa will operate the Deep Water Channel Berth pipeline to bring petroleum products from the Port of Stockton dock facilities. The pipeline will be designed with a flow rate to the TST of a maximum 9,000 to 10,000 bph. The MAOP of the 16 inch line will be 1440 psi. Pipeline design and construction will be the same as the above Kinder Morgan Product Pipeline.

3.3.3. Pipeline Seismic Design

Finite element analyses (FEA) will be used to predict the performance of the pipelines in regards to potential seismic activity, known areas of liquefaction and areas along the route that will experience lateral spreading during a large earthquake. Based on the FEA, the design will be refined (increase pipe wall thickness, reroute, vary depth of cover, etc) to insure that the pipe will not lose containment of the petroleum products after a large earthquake.

3.3.4. Pipeline Coating and Cathodic Protection Systems

The primary protection from corrosion for pipelines will be provided by industrial grade coatings. The project currently proposes to coat all external pipe with fusion bonded powdered epoxy or equal coating.

The Cathodic Protection (CP) systems will be designed and installed to protect all below grade steel piping and structures installed by the project as a secondary means to protect against corrosion. Design of all CP systems shall be in accordance with the latest NACE design standards and TRC's engineering standards.

Basic components of the CP system will consist of rectifiers which convert AC to DC power, deep well ground beds and/or buried anode beds, test stations along the pipelines and within the terminal and tank farms, electrical insulators at above grade connections and cathodic protection bonds to existing nearby steel pipelines and other substructures if determine necessary following steady state potential surveys. The performance of the system will be monitored on a regular basis. Any problems will be corrected immediately.

3.3.5. Pipeline Operations

The pipeline safety system would rely upon a Supervisory Control and Data Acquisition (SCADA) system, which would gather data from remote points for use by automatic controls and safety systems. In general, the SCADA system would provide continuous real-time operational data, including product-specific information, such as temperature and gravity; and operational information, such as pressure and flow rates. Information available through the SCADA system would also include security system status, intrusion detection alarms, remote video camera pictures, fire-fighting system status and alarms, and other facility status points. The SCADA system would provide the pipeline controllers with the ability to remotely control systems operation and respond to alarms that are initiated when operating conditions fall outside established parameters. Upon detection of an irregularity, the pipeline system controllers would have the capability to shut down the affected terminal equipment or pipeline by remotely stopping pumps and closing block valves. Pressure control valves, pressure measuring devices, and pressure relief valves would protect the pipelines.

A pipeline leak detection system would be installed to provide constant monitoring of pressure and flow. Flow or pressure deviations would be analyzed by the leak detection system and an alarm would be sounded should any reported deviations exceed pre-set parameters. The pipeline routes would be visually inspected at least biweekly by line rider patrol in accordance with DOT requirements (49 CFR Part 195) to spot third party construction or other factors that might threaten the integrity of the pipelines. Inspection of highway, utility, and pipeline crossing locations would be conducted in accordance with state and federal regulations. Pipelines would be inspected annually at all test locations, quarterly at control points, and more than quarterly at cathodic protection systems to ensure corrosion control. Cleaning and inspection viable mechanical "pigs" would be conducted in accordance with DOT regulations.

System inspection and maintenance of the pipelines would include periodic hydrostatic testing to check for pipeline leakage and mechanical integrity under pressure, as required by DOT. The tests would involve filling the pipelines with water or other fluid and increasing the pressure by means of a pump equivalent to 125 percent of the maximum allowable operating pressure (MAOP) for a period of at least 4 hours. Following the 4-hour test, the pressure would be reduced to 110 percent of MAOP and held for at least 4 additional hours. Following the test, the water would either be transferred to the next pipeline section or discharged into an existing storm drain with the prior approval of the CVRWQCB.

All pipeline valves would be inspected and maintained in accordance with the standards promulgated in Title 49 of the CFR, Chapter I, DOT, Part 195, Section 195.420 – Valve Maintenance. In-line block valves would be cycled and inspected twice annually, not to exceed 7 months between inspections, to ensure proper operation.

The cathodic protection system designed for the pipelines would consist of rectifiers,

buried anodes, and test stations along the pipelines and within the Deep Water Channel Dock/Berth and TST tank farm. The cathodic protection system would be designed and installed within 1 year after completion of Project construction. The design basis requires knowledge of the steady state potential along all parts of the pipeline system, which can only be determined after the system is in operation for an extended period. Once these data are obtained, the system components would be designed and installed.

Once in operation, rectifiers would be checked six times annually, not to exceed 2.5 months between inspections, to ensure they are operating properly. Quarterly, voltage and current readings would be recorded for each rectifier; voltage readings at important test stations throughout the system are measured and recorded. Annually, voltage reading at all test stations would be measured and recorded; if data indicated that potential problems areas existed on the pipeline, voltage readings would be taken throughout the suspect areas using a technique called a close interval survey.

Adjustments would be made to the system whenever test data indicated that voltage levels were outside the design limits. Targa subscribes to the Underground Service Alert "one call" system that would provide a single toll-free number for contractors and individuals to call prior to digging in the vicinity of any pipeline. Upon notification that a contractor or property owner intended to dig in the vicinity of a pipeline, the Targa would mark the horizontal location of the pipeline. Marking would be provided within 48 hours of request. Additionally, a warning tape with the pipeline name would be buried approximately 18 inches above the new pipelines.

3.4. Deep Water Channel Berth

3.4.1. Engineering and Design Standards

The engineering and design for the Deep Water Channel Berth at Port of Stockton berths 10 and 11 would be based primarily on the "MOTEMS" Chapter 31F, Title 24, Part 2 California Code of Regulations, promulgated by the State Lands Commission. These regulations were adopted by the California State Lands Commission (CSLC) and are the most advanced of their kind (CSLC 2004).

3.4.2. Berth Structures

The berth structures will be designed to withstand ship berthing loads (the loaded ship bumping the dock and the mooring lines pulling on the dock and mooring dolphins), wave loads, passing vessel loads and wind, all in accordance with the State of California's new Marine Oil Terminal Engineering & Maintenance Standards (MOTEMS). The structure is also designed to withstand earthquakes.

Table 3-2: Berth Structures-Components & Specifications

Component	Specification
Loading Arms Stripping Pumps	10 HP Positive Displacement, 50 gpm, 150 psig discharge
Two Unloading Arms	16 inch Double Counter Weighted Marine Arms (DCWMA)
Fire Water System	Two 3,000 gpm, 150 psig vertical can pumps; Stem-and-yoke valves

Component	Specification
Foam System	1,100 gpm; remote-controlled; aqueous film forming foam (AFFF) concentrate storage and proportioning capability
Compressed Air	4 inch line
Storm Water System	6 inch curbing of 3,234 square feet of deck; 2,500-gallon concrete deck sump; twin 100 gpm pumps; 6 inch piping
16 inch Pipeline	Schedule 40 or Schedule 80
All Pipeline	External coating; cathodic protection system

The proposed berth would include mooring dolphins with quick release hooks and power capstans; a mooring and fendering system; 2 offloading arms; an electric-motor-driven derrick cargo crane; a davit crane (boat lowering crane); 4,000 feet (ft) (1,219 meter[m]) of spill boom storage; low-impact area lighting systems; offshore structure cathodic protection corrosion prevention systems; navigational lighting systems; cable trays, wiring, instrumentation and controls, and grounding systems.

3.4.3. Berth Layout

The berth layout will include four fenders mounted on four breasting dolphins which form the fender line, with which the moored ship will be in contact. In addition, mooring dolphins which support mooring hooks will be installed on the berth. The mooring hooks hold the mooring lines that secure the ship in place at the berth. The various size ships and barges will use the appropriate mooring dolphins to maintain the correct mooring line geometry.

The berth will support the unloading arms, pumps, the operator's shed, AMP and supports track for the AMP equipment. The AMP system will allow ships that are capable of using the shore provided power to reduce emissions by replacing power to some of the ship's systems usually powered by the ship's own generators. (See Section 5: Berth Layout Plan)

3.4.4. Berth Safety Features

It is the intent of Targa to incorporate all appropriate technology enhancements such as:

- Mooring load monitoring equipment which senses the strain on the lines securing the ship and warns the terminal operators in advance of any impending problems.
- Quick release hooks, which allow for the safe and timely release of the vessels mooring lines as the ship disembarks.
- Laser-assisted Berthing Aid System to facilitate a "soft landing" when the ship arrives at the berth.
- Two-stage alarm system to alert the operator to stop pumping when the unloading arms or gangway nears the limits of their reach, or when the mooring line loads near the limits of their capacity.
- Emergency Shutdown and Emergency Power System
- Real-time environmental monitoring of wind, current, waves, and seismic conditions.

3.4.5. Berth Fire Protection

The fire protection system for the berth is one of the most critical areas of design. MOTEMS will be considered the primary governing standard for this facility. Per section 3108F.2 of MOTEMS, a Fire Hazard Assessment and Risk Analysis will be conducted. The total required firewater flow rate for this facility is between 6,000 gallons per minute (gpm) and 9,000 gpm per NFPA. The Fire Chief may impose additional requirements based on the size and layout of the dock/berth terminal. A 24-inch fire main will supply fire hydrants spaced at 300 feet maximum along the access roadway. The unloading platform and breasting dolphins will have a total of

four 1,500 gpm foam remote control fire monitors.

3.4.6. Mooring and Fendering System

Tankers or barges would generally be moored starboard (right) side to the mooring facility, although under occasional, non-typical events, a vessel could be moored port (left). The mooring facility would be designed in accordance with the latest ISGOTT and OCIMF tanker mooring guidelines to accommodate the range of ships expected to call at the facility. Each mooring point would be equipped with quick release mooring hooks to allow rapid unmooring of the vessel in case of emergency. The dock/berth platform would be fitted with a fendering system to accommodate the range of vessels that may be serviced. The fendering system will be designed to accommodate a 10-ft (3-m) elevation change of vessels that the fender system would have to accommodate. Mooring cleats for the barge lines would be provided on the unloading platform and the inner breasting dolphin structures. Details of the barge fendering and mooring hardware would be developed further during the detailed design phase of the proposed Project.

3.4.7. Offloading Arms

The dock/berth would be designed for two offloading/loading arms. The arms would be designed to rotate more than 180 degrees to allow for the vertical movement of the vessel due to tide and cargo operations, and would be equipped with a warning system that would sound when the limits of movement are approached. The offloading arms would be moved by their electro-hydraulic control system. A series of solenoid valves would be cycled to drive the offloading arm rams, which in turn would control swing, and upper and outer arm reach. Each offloading arm would be equipped with a mechanically engaged parking lock to secure it while stowed. A fixed control station located in a strategic location for good visibility, and wireless handheld control stations for operator mobility to get close to the arm and ship's manifold, would be provided. The unloading arms would be equipped with Quick Connect/Disconnect Couplers (QC/QDs) at the manifold. Hydraulic motors would open and close the locking cams on the quick-connect/disconnect couplers.

3.4.8. Containment Curbing and Sump System

All dock areas that would be subject to potential leaks, spills and drips from equipment, pipe flanges, pumps, loading arms, valves, etc. would be contained within a 6-inch-high curbed 3,234 square feet (sq ft) (300 square meter [sq m]) area. Rainwater falling within this area would be collected and drained to a 2,500-gallon concrete sump under the dock. Twin 100-gallon per minute (gpm) pumps would start in sequence on high level. The contact rainwater from this sump would then be pumped through a 6-inch line to a water treatment separator located at the Tank Farm off Navy Drive and subsequently discharged pursuant to an NPDES permit.

3.4.9. Berth Piping, Pumps, and Valves

All piping on the berth and in the terminal would be API Spec 5L line pipe, standard or XS wall for the large lines, and Sch 40 or Sch 80 for the smaller lines. Piping would be supported above deck on guided or anchored supports. Since the offloading arms must be moved and stored empty, two 50 gpm, 10 horsepower (hp), positive displacement, 150 psig discharge dockside stripping pumps for product would be provided to empty the arms after each transfer operation. These pumps would be capable of drawing suction at negative pressure. The petroleum product would be pumped back into their respective pipeline systems to salvage the liquids. In addition, a slop/drain tank would be provided for any miscellaneous petroleum product draindowns not piped directly to the

stripping pumps. The stripping pumps would be plumbed to pump the contents of that tank into the pipeline to salvage the liquids. The pumps on the dock/berth could also serve as containment area rainwater (or contact water) sump pumps. Two 100 gpm contact water pumps would be vertical turbine pumps drawing runoff water from a sump under the dock. Each one would be capable of handling the maximum design rainfall; the other would serve as a backup. Most of the valves on the dock/berth would be gate valves, while fire water valves would be the outside stem and yoke type. The outlets on each of the loading arms would be air-operated gate valves that would close at a controlled rate in case of a loss of control power or air supply. Check valves would be used on various lines in the system to prevent backflow. Since the product lines would be bidirectional, the line would have a two-way valve station with opposite-facing check valves.

3.4.10. Berth Lighting

Lighting would meet Stockton Port District, and United States Coast Guard (USCG) requirements. The berth would have a variety of lights, including an 80-ft (24.4-m) high tower to illuminate the loading/unloading arms and connection to the ship, and lower deck-level lights to illuminate the equipment and piping in specific areas where additional light is required or where equipment would shadow the tower lighting. The tower would have from four to eight 400-watt fixtures, based on needs determined by lighting calculations. An option that would be considered for the loading arms would be low-level lighting on the arms to assist with nighttime maintenance or operations. If a dockside emissions treatment unit is installed, appropriate lighting would be required.

3.4.11. Utilities and Conduits

Electricity and potable water and sanitary sewer would be provided by the Stockton Municipal Utilities Department. The potable water line would be sized to furnish water to visiting ships, but it would also be used for emergency shower and eyewash stations, and for water to hose-down equipment. Electrical power sufficient to support AMP and the berth electrical equipment would be supplied by a 34.5 kilovolt (Kv) or higher service. Depending on the final electrical design, an electrical distribution panel could be needed.

3.4.12. Berth Facility Controls

The berth would have monitoring instruments that would have both local and remote annunciation (i.e., signal indicators). Some functions of the berth facilities, such as manual valves, stripping pumps, and offloading arm positioning, would be controlled locally at the berth. Others would be controlled locally or remotely, such as air-operated valves and contact water pumps. The foam fire water monitors

would be designed to operate remotely. Automatic operations include flow rate control, transfer start-up and shut-down sequencing, contact water, and storm water pumps. All remote control and monitoring would be processed through a remote programmable logic controller (PLC) unit, which would communicate with the central control PLC and related alarm systems. One control station would control both offloading arms through a selector station. The speed of the arms could be adjusted by setting pilot valves on each of the hydraulic branches. The control station would have a permissive logic option which

would allow customizing the controls to prohibit arm disconnection and movement unless the arms have been drained. The arms could also be equipped with reach and range limit switches, which would activate an alarm should the offloading arms exceed their design envelope limits. Offloading arm operation would be monitored, and loading arm envelope limit alarms would also be sent to the control room. Discharge pressures at the unloading arms would be indicated locally and reported remotely to the control room, and would be tracked for deviations from normal operating ranges. Both the rainwater sump and the slop/spill tanks would have high level and high-high level switches, remotely annunciated and also reported to the control room.

A berth control building would control operations of the berth from consoles in a stand-alone building. The control building would be designed with earthquake protection and multiple security systems to ensure that only authorized personnel enter. In addition, the facility would have two uninterruptible power supplies and a diesel generator to provide continuous power in the event of an external power failure, and fire detection and suppression systems. To ensure environmental protection and safety, discharge from the vessel to the tank farm would follow required exchanges of general and emergency information and ship inspections.

3.5. Terminal Storage & Receiving Facilities

Targa will install twenty storage tanks ranging in size from 10,000 bbls with dimensions of 40 feet in diameter and 48 feet in height to 80,000 bbls with dimensions of 110 feet in diameter and 48 feet in height to receive and store product. The TST will be designed to safely and efficiently receive petroleum product, crude oil, bio fuels, and ethanol from the Kinder Morgan Product Pipeline, Deep Water Channel Dock/Berth, Rail, Truck and distribute the various TST products to customers throughout the Northern California region. The TST will have the capability to accommodate 850,000 barrels of product in tankage, all fully in compliance with Best Available Control Technology (BACT), as determined by the SJVAPCD. Shore-Side pumps will be installed to reduce vessel emissions and maximize unloading rates. High capacity product distribution pumps will also be installed to quickly move the product to customers.

The TST will be located just north of the Pacific Ethanol Plant within the rail loop at the Port of Stockton, with pipelines connecting these facilities to customers and supplies. The TST will be designed in full compliance with all state and local codes and standards, as well as industry recognized design standards. Additionally, the facilities will incorporate landscaping elements to improve the visual appearance of the sites and soften the industrial nature of the operation.

3.5.1. Tankage System

The new tanks will be constructed with Best Available Control Technology (BACT), as determined by the SJVAPCD.

3.5.2. Tank Construction

All tanks will be of welded steel construction, designed in accordance with the latest edition of American Petroleum Institute (API) Standard 650, "Welded Steel Tanks for Oil Storage." The tanks will range in size from 40 to 110 feet in diameter and 40 to 48 feet in height. The storage tank foundations will be concrete ring-walls. The

design will include tank bottom leak detection and cathodic protection. The soil beneath the storage tanks will be over excavated and re-compacted as required for the tank foundations. Depending on the final Geotechnical report tank foundations may also require pilings.

3.5.3. Tank Emission Control

The tanks will control emissions with the use of internal floating roofs (IFR's). IFR's control emissions by resting (floating) directly on the stored petroleum product. This minimizes the area of the interface between the product and the air within the tanks, preventing vapors from being formed along the liquid surface.

To further reduce emissions, the IFR's are equipped with primary and secondary seals. The seals prevent emissions from escaping from between the IFR and the tank shell. The primary seal is a metallic band (called a shoe) attached to the floating roof. The shoe slides in contact with the tank shell as the level of product in the tank rises and falls. The secondary seal is mounted above the primary seal. Secondary seals further reduce vapor losses from the gaps between the metallic shoe and tank shell.

In addition to the IFR seals, all penetrations through the IFR are sealed. This includes penetrations for support columns, gauging poles and hatches and ladders.

The tanks will be designed to "drain dry." A drain-dry tank can be completely drained of product using the standard pumping systems. This is necessary when changing between different product types, preventing contamination of one product with another. Drain-dry tanks reduce emissions because the number of times the tank must be cleaned for product changes is reduced.

Emissions from drain-dry cycles are further reduced by installation of a vapor recovery unit. During drain-dry operations, the IFR will rest on its low legs when removing the last barrels from the tank. Vapors will not be released while product is being drawn from the tank. When the tank is refilled, the new product displaces the vapor below the IFR until it contacts the liquid surface. These vapors will be extracted with the use of a blower and destroyed through an incinerator air pollution control system.

3.5.4. Tank Containment

To prevent corrosion from water present in some petroleum products, the internal tank bottoms and three feet of the internal tank shell will be epoxy coated, preventing the water from contacting the tank shell. The tanks will be installed on concrete ringwall foundations, elevated approximately 1.5 feet above the surrounding grade. An 80 mil high-density polyethylene (HDPE) synthetic liner will be installed below each tank, providing secondary containment. Further, the tanks will be installed in a diked containment area. The dikes will be designed to contain the entire contents of the largest tank, plus provisions for rain water. The tanks will also be equipped with level gauges and redundant level alarms. The devices will be integrated with the control system, stopping material from entering the tank should a high level be detected. The tank farm area will be constructed to include a layer of substantially impermeable soil, in compliance with EPA (40CFR112) regulations. Earthen dikes will be constructed to provide the required secondary containment capacity. The tank farms will be accessible by means of over the containment dike ramps. Masonry walls will be constructed to provide secondary containment for the additive storage area. Masonry walls will be used for tank farm containment when constructability and/or economic factors make their use practical.

Spill containment will be constructed at the storage tank farm, loading racks, ethanol rail offloading facility, deep water channel port/berth and fuel additive storage area. Spill and drip containment pads will be

constructed to contain rain water at the VRU, pump, meter prover, and oily-water separator areas.

3.5.5. TST Control Systems

The Supervisory Control and Data Acquisition (SCADA) system will provide continuous real-time, operational data to the Deep Water Channel Dock/Berth and TST Control Center. Targa proposes to use a fiber optic network as the primary system to communicate data, video and control signals from the deep water channel dock/berth, all storage tanks, pipelines and delivery location facilities.

Typical information monitored by the system includes:

- Product-specific information such as temperature and gravity.
- Operational information such as pressure and flow rates, as well as information on the operational condition of pumps, valves, tanks, tank vapor recovery blower and vapor incinerator status and alarms.
- Security system status, intrusion detection alarms, remote video camera pictures.
- Firefighting system status and alarms, and other facility status points.

Numerous software applications will be integrated into the SCADA system to assist the pipeline controllers with certain functions, such as product batch tracking, historical event analysis, trend monitoring, flow balance and leak detection monitoring. Automatic report generation systems will supply historical and current data to operations and maintenance personnel.

In addition to continuous monitoring, the SCADA system will provide the pipeline controllers with the ability to remotely control important aspects of systems operation, including starting and stopping pumps, opening and closing valves, switching into and out of storage tanks and facility emergency shutdowns. The SCADA system will be programmed to alert the pipeline system controllers any time that operational conditions fall outside established parameters. Upon detection of an irregularity, the pipeline system controllers will have the capability to shut down the affected terminal equipment or pipeline by remotely stopping pumps and closing block valves that will be part of the various systems. Additionally, Emergency Shutdown buttons (ESD) will be installed at key locations around the TST and Deep Water Channel Berth, allowing system operators to securely halt operations in case of an emergency. Designing and operating the SCADA system in this way will provide for a high degree of safety in the operations, allow for quick and technically sound responses to abnormal conditions, and simultaneously provide the basis the environmentally sensitive operating decisions

3.5.6. Petroleum Products

All petroleum products will be delivered to the terminal by means of either the Kinder-Morgan (KM) pipeline, marine vessel via Deep Water Channel Berth pipeline to the TST, truck at the offloading truck rack or by rail car delivery at the rail offloading rack. The project will include the extension of these pipelines to TST. Each pipeline extension will be utilized for multiple petroleum products. Product interface will be determined by sampling the incoming lines for change in specific gravity. The TST operator will be responsible for controlling batch changes. The receiving line from each pipeline will be equipped with a metering system and a prover. Each incoming line will be equipped with an incoming manifold with a branch for gasoline, diesel and transmix. The gasoline and diesel branches will feed the tank distribution manifolds. The transmix line will

be routed to the transmix tank. The transmix tank will be sized to provide capacity for full flow relief. Provisions will be made to accommodate the receipt of regular gasoline from both the KM and Deep Water Channel Berth pipeline at the same time.

3.5.7. Denatured Fuel Ethanol

The TST will receive denatured ethanol by rail. All references to ethanol in the Design Basis shall mean denatured fuel ethanol. The project will utilize the existing rail loop and sidings which surround the TST project site. The loading and offloading rail racks will be located along the northern side of the existing rail loop. Provisions will also be made for truck deliveries of ethanol at the truck loading rack. The ethanol railcar receiving facility will accommodate twelve (12) 30,000 gallon rail cars at a time. The system will off-load and transfer to storage at a rate of 4,000 bph. Trucks will be able to unload at the unloading truck rack.

A positive displacement pump will be provided for the offloading of each rail car (total 12) to the Ethanol Tanks. It will have a local Start-Stop pushbutton station for control. Control will be manual by the Operator. There will not be a flow switch shutdown. The Operator will walk down his hose at the end of the load, close the offload valve and stop the pump. The Ethanol tank will have a redundant high level alarm. If there is an alarm offloading will be halted. There will still be enough room in the tank to allow time for the shutdown of offloading.

3.5.8. Product Return and Ethanol Off-Loading System (PRS)

A positive displacement pump will be provided for product return and Ethanol offloading on a separate off-loading truck rack. There will be a manifold at the pump with individual return lines to Transmix, Ethanol, Regular, Premium, Low Sulfur Diesel and Ultra Low Sulfur Diesel tanks. It will have a local Start-Stop pushbutton station for control. Control will be manual by the Operator. There will not be a flow switch shutdown. The Operator will walk down his hose at the end of the load, close the offload valve and stop the pump. The tanks all have a redundant high level alarm. If there is an alarm offloading the truck will be halted. There will still be enough room in the tank to allow time for the shutdown of offloading.

3.5.9. Terminal Receiving Meters and Meter Proving

A metering system will be provided for each incoming pipeline. Each metering system will include a strainer and a turbine meter with straightening vane and a bi-directional prover. The meter prover manifold on each incoming line will consisting of three (3) double block and bleed valves that will isolate product to and from the prover on each incoming line.

3.5.10. Drain Down Sump

A means for drain down of the meters and prover will be provided. The preliminary design includes a 4000 gallon below grade tank. The tank will be designed to meet secondary containment requirements and will include level monitoring and leak detection instrumentation. The sump will be emptied by means of a 10 hp vertical turbine pump. The pump discharge line will be piped to allow product to be directed to the transmix tank, the regular gasoline tank or the low grade diesel tank.

3.5.11. Additive and Lubricity Offloading

A positive displacement pump will be provided for the truck offload rack to the Additive Tanks. There will be a manifold at the pump with individual lines to each additive tank. It will have a local Start-Stop pushbutton station for control. Control will be manual by the driver. There will not be a flow switch shutdown. The additive tanks will have a high level switch to alarm on overfill. If there is an alarm offloading the truck will be halted. The Operator will stick the tank before offload to verify room in the tank. He will line up the manifold valve to the right tank. The driver will offload the truck.

3.6. TANK STORAGE FACILITY CAPACITIES AND DESIGN REQUIREMENTS

The TST storage capacity will be designed for the following initial daily throughput:

3.6.1. GASOLINE

The basis of design assumes that pipeline operations will require that storage capacity be provided for seven (7) days. The required daily volume of 12,100 barrels or a gasoline storage capacity requirement of 84,700 bbl. The basis of design assumes two (2) grades of gasoline will be required and that the grades are distributed 50-50%, regular to premium. The regular gasoline storage capacity requirement will be 42,350 barrels. The premium gasoline storage capacity requirement will be 42,350 barrels. A table with tank data is included at the end of this section.

3.6.2. REGULAR GASOLINE

The regular gasoline storage tanks will have cone roofs with internal floating pans with primary and secondary seals. The tanks will be operated at a retention level that prevents the tanks going on low legs. With this retention volume and the volume displaced by the pan at high level, the

operating volume of the tanks will be 90% of design capacity. On that basis, the operating capacity of a 50,000 bbl tank will be 45,000 bbl. The calculated requirement for regular gasoline for 50,000 bbl tanks (based on regular gasoline throughput of 6,050 bpd) would be 1 tank. One (1) 50,000 bbl storage tank will be installed in the TST's. This amounts to a 7 day supply of regular gasoline.

3.6.3. PREMIUM GASOLINE

Using the same criteria for tank capacity as indicated for regular gasoline, the calculated requirement for premium gasoline for 50,000 bbl tanks would be 1 tank. One (1) 50,000 bbl storage tank will be installed in the TST's. This amounts to a 7 day supply of premium gasoline, based on premium gasoline throughput of 6,050 bpd.

3.6.4. DIESEL

The same pipeline operation criteria were used for diesel as were used for gasoline. Storage will be provided to meet the throughput requirement for seven (7) days. It is estimated that Diesel demand will be initially a daily volume of 13,950 barrels or a storage capacity requirement of 97,650 bbl. The same criteria indicated above for gasoline, will be used for diesel storage except that the secondary seal will not be installed on the floating pan in the diesel tanks. The calculated requirement for diesel for 80,000 bbl tanks would be 1. The operating capacity of an 80,000 bbl tank will be 72,000 bbl. The calculated requirement for diesel for 80,000 bbl tanks would be 1 tank. The design basis includes storage for low sulfur diesel (LSD) for ultra-low sulfur diesel (ULSD) and biodiesel (BIO). The TST's initial construction will provide for one (1) 80,000 bbl tank for LSD, one (1) 80,000 bbl tank for ULSD and one (1) 80,000 bbl tank for BIO storage. Based upon the operating volume of the tanks utilizing 90% of design capacity, this amounts to a 15.5 day supply of diesel.

3.6.5. Denatured Fuel Ethanol

Ethanol will be delivered by rail or pipeline from Pacific Ethanol Plant located immediately south of the TST. The TST design is based on a minimum storage capacity requirement of eighteen (18) days at the daily design basis rate of 2,700 bbl, or an ethanol storage capacity requirement of 48,600 barrels. The TST design will provide for one (1) 80,000 bbl ethanol storage tank and four (4) 20,000 bbl ethanol storage tanks. Based upon the operating volume of the tank utilizing 90% of design capacity, this amounts to a 53 day supply of ethanol. The ethanol storage tank will be a cone roof tank with an internal floating pan with primary and secondary seals. An additional 80,000 bbl denatured fuel ethanol storage tank is planned for future construction.

3.6.6. Crude Oil

Crude oil will be delivered by rail. The TST design is based on a minimum storage capacity requirement of fifteen (15) days at the daily design basis rate of 7,500 bbl, or crude oil storage capacity requirement of 112,500 barrels. The TST design will provide for five (5) 50,000 bbl crude oil storage tanks. Based upon the operating volume of the tanks utilizing 90% of design capacity, this amounts to a 30 day supply of crude oil. The crude oil storage tanks will be a cone roof tank with an internal floating pan with primary seals.

3.6.7. Transmix

The Terminal design basis includes the installation of a transmix tank. The transmix tank will be sized to provide additional capacity for full flow relief. The transmix storage tank will be a cone roof tank with an internal floating pan with primary and secondary seals. One (1) 10,000 bbl tank is provided for transmix and full flow relief. The tank farm layout will comply with the requirements of NFPA 30 and the Uniform Fire Code. Tanks will be designed, fabricated and installed in accordance with API-650.

3.6.8. TANK STORAGE DATA

Table 3-3: Tank Storage Data

TANK #	PRODUCT	CAPACITY (BBLS)	TANK DIA. (FT)	TANK HEIGHT (FT)	RVP PSIA @ 100 F	TANK ROOF TYPE		
						Cone	Pan	2ND Seal
T-1	Bio-fuel	20,000	56	48	***	Yes	Yes	Yes
T-2	"Swing" Tank	50,000	86	48	7-15	Yes	Yes	Yes
T-3	Additives	10,000	40	48	7-15	Yes	Yes	Yes
T-4	Additives	10,000	40	48	7-15	Yes	Yes	Yes
T-5	Trans Mix	10,000	40	48	7-15	Yes	Yes	Yes
T-6	Ethanol	20,000	56	48	3.5	Yes	Yes	Yes
T-7	Ethanol	20,000	56	48	3.5	Yes	Yes	Yes
T-8	Ethanol	20,000	56	48	3.5	Yes	Yes	Yes
T-9	Ethanol	20,000	56	48	3.5	Yes	Yes	Yes
T-10	Crude Oil	50,000	86	48	***	Yes	Yes	No
T-11	Crude Oil	50,000	86	48	***	Yes	Yes	No
T-12	Crude Oil	50,000	86	48	***	Yes	Yes	No
T-13	Crude Oil	50,000	86	48	***	Yes	Yes	No
T-14	Crude Oil	50,000	86	48	***	Yes	Yes	No
T-15	Ethanol	80,000	110	48	3.5	Yes	Yes	Yes
T-16	Low Sulfur Diesel	80,000	110	48	***	Yes	Yes	No
T-17	Regular Gasoline	50,000	110	48	7-15	Yes	Yes	Yes
T-18	Premium Gasoline	50,000	86	48	7-15	Yes	Yes	Yes
T-19	Bio Diesel	80,000	110	48	***	Yes	Yes	No
T-20	Ultra Low Sulfur Diesel	80,000	110	48	***	Yes	Yes	No

***0.5 MM Hg @ 68 F

3.6.9. Truck Loading Rack and Design Requirements

Loading rack design is based on the following truck loading rates:

Product	Maximum Flow Rate gpm
Gasoline	720
Diesel Fuel	600
Transmix	600

No provision will be made loading pure ethanol

An ethanol blend of gasoline will account for 45,200 bbl or 1,898,400 gal.of gasoline per day. Diesel product will account for 9,300 bbl or 390,600 gal per day. The basis of design is a total daily loading capability of 2,289,000 gallons of product. We are assuming that the TST will be open for 24 hours per day. However, for the purposes of our calculations, we are using a 23 hour day. We are allowing 1 hour a day for maintenance or other interruptions to normal operations. We are assuming that the average loaded volume for each transport vehicle will be 8500 gallons. We are assuming that each transport vehicle will be able to spot, load and leave in fifteen (15) minutes or less. Using this basis, the facility will require the installation of eight loading lanes.

3.6.10. Product Blending

Gasoline and Ethanol will be ratio blended. Premium, Regular and Ethanol will be ratio blended for Midgrade. The Premium/Midgrade arm will be capable of blended Midgrade or blended Premium. It will not be used for Regular because that requires sometimes laying the line down in Regular when the next load could be Premium. There will be dedicated Regular arms. The rack loading control system will perform the ratio blending, additive injection and pump start. Additive injection will take place downstream of the blend tees. Diesel arms will be dedicated to either Bio Diesel (BIO) Ultra Low Sulfur Diesel (ULSD) or Low Sulfur Diesel (LSD) with injection of Lubricity, Antistat or Red Dye as appropriate. The Red Dye arms will be either Red Dye Diesel or Clear Diesel. The rack loading control system will perform the loading, additive injection and pump start.

3.7. TST PUMPS

3.7.1. Transfer Pumps

Product transfer pumps will be selected so that the same basic pump and impeller can be used for all high delivery fuel systems. The impeller size will be selected to operate near the best efficiency point when delivering regular gasoline. These pumps will be intermediate heavy-duty process pumps designed and fabricated to ASME/ANSI standards. The pumps will be supplied with conventional double seals to meet environmental regulations.

Transfer Pump Summary:

Table 3-4: Transfer Pump Summary

Description	No. Req'd	Type	Rate (gmp)	Head Req't (ft)	HP Req't
Regular Gasoline	4	Horizontal Centrifugal	1625	180	75
Premium Gasoline	3	Horizontal Centrifugal	1760	150	75
Bio Diesel	2	Horizontal Centrifugal	1624	150	75
ULS Diesel	2	Horizontal Centrifugal	1420	180	75
LS Diesel	2	Horizontal Centrifugal	1624	150	75
Ethanol	2	Horizontal Centrifugal	600	180	20
Transmix	2	Horizontal Centrifugal	900	130	50
Bio Fuel	2	Horizontal Centrifugal	900	130	50

3.7.2. Other Process Pumps

For other process services such as the Fuel Ethanol rail car off-loading, Deep Water Channel Berth, product return, additive off-loading and additive injection, this project will use Positive Displacement (P/D) pumps, such as Viking pumps, due to their low NPSH requirement, minimize pump cavitation and discharge flow mal-distribution. A vertical turbine pump would be used for the drain down sump. Below are the other process pumps summary:

Table 3-5: Process Pumps Summary

Description	No. Req'd	Type	Rate (gmp)	Head Req't (ft)	HP Req't
Fuel Ethanol Rail Car Off-Loading	12	Positive Displacement	200	120	7.5
Deep Water Channel Berth Off-Loading	4	Positive Displacement	200	150	20
Product Return	1	Positive Displacement	200	120	7.5
Drain Down Sump	1	Vertical Turbine	200	100	10
Oil Water Separator Water	N/A	N/A	N/A	N/A	N/A
Oil Water Separator Oil	N/A	N/A	N/A	N/A	N/A
Additive Off-Load	1	Positive Displacement	200	120	7.5
Gasoline Additive	8	Positive Displacement	7		2
Bio Fuel Additive	2	Positive Displacement	7		2
Lubricity Additive	2	Positive Displacement	7		2
Red Dye Additive	2	Positive Displacement	7		2
Antistatic Additive	2	Positive Displacement	7		2

Notes:

N/A: Not Applicable - Discharge by gravity. No equipment requirements at this time

All centrifugal pumps to be intermediate heavy-duty process type pumps.

Pumps to have double or tandem cartridge type mechanical seals when required.

Pump material to be C.S. and pumps and motors to be mounted on a steel base with couplings and guards.

Electric motors to be: 480 Volts/3 PH/60 Cycles and Class1, Div.2, Group C/D

3.8. Additive Systems

3.8.1. Gasoline Additive Systems

Additive Systems will be installed with capability of future expansions as may be necessary. Each shall consist of a vertical 10,000 gallon above grade cylindrical storage tank designed per Standard UL 142 latest edition. All additive tanks will be 10 ft in diameter with hold down anchor bolts. A 2 ft tall secondary containment wall is provided for these additive tanks and for future additional tanks. Each tank shall have a dedicated dual pump skid pumping to injectors at the load racks. They are also installed in the tank secondary containment facility. The Additive tanks are sized at 10,000 gallons each to receive an 8,000 gallon truck shipment. The additive injection will be controlled by the rack loading control system. The additive tank will have level indication and an overfill alarm switch and horn to alert the driver in case of overfill.

3.8.2. Lubricity Additive System

A Lubricity Additive System will be installed. It shall consist of one (1) vertical 10,000 gallon cylindrical above grade storage tank designed per Standard UL 142 latest edition. This tank will be 10 ft in diameter with hold down anchor bolts. The Lubricity additive tank and a dual pump skid pumping to injectors at the load rack are located in the same tank secondary containment facility containing the gasoline additive tanks and their dual pump skids. The additive injection will be controlled by the rack loading control system. The Lubricity tank will have level indication and an overfill alarm switch and horn to alert the driver in case of overfill.

3.8.3. Red Dye Additive System

A Red Dye Additive System will be installed. It shall consist of tote storage in the Truck Load Rack containment, a dual pump skid at the tote and injectors at the load rack. The additive injection will be controlled by the rack loading control system. There will be a shutoff solenoid valve at the injection point on the load rack. Each load may be either Red Dye or Clear. There will not be dedicated Red Dye arms. The Red Dye tote will be re-filled. There will be one tote and dual pump system supplying the injectors on the load rack.

3.8.4. Anti-Static Additive System

An Anti-Static Additive System will be installed. It shall consist of tote storage in the Truck Load Rack containment, a dual pump skid at the tote and injectors at the load rack. The additive injection will be controlled by the rack loading control system. The Anti-Static tote will be re-filled. There will be one tote and dual pump system supplying the injectors on the load rack.

3.9. Truck Loading Vapor Recovery Unit (VRU)

A John Zink Hydrocarbon Vapor Recovery Unit (VRU) is proposed for vapor control, during truck loading operations. This VRU meets SJVAPCD Rule 4624, 5.0 Requirements for the Stockton area, reducing the emissions of VOCs to 0.08 pounds or less per thousand gallons of organic liquid loaded at the loading racks. The VRU would be designed to handle vapors from the eight (8) bay truck rack with a maximum loading rate of 720 gpm per loading arm.

The loading profile for sizing the VRU is as follows on the next page:

Table 3-6: Vapor Recovery Unit Loading Profile

Qi	# Arms	GPM/Arm	Qi/Product
Regular	9 X	677 =	6,903
Premium	6 X	677 =	4,062
Diesel	8 X	600 =	4,800
Ethanol			609
		Total Gallons Products Qi =	15,564

Q15	Gallons/Truck	# Bays	Gallons/15 Minutes
	8,500 X	8 =	68,000
	6 X	677 =	4,062

Q1	Q15	Factor	Gallons/1 Hour
	68,000 X	3.2 =	217,600

Q4	Q1	Factor	Gallons/4 Hour
	217,600 X	3.0 =	609,280

Q24	Q15	Factor	Gallons/24 Hour
	609,280 X	3.8 =	2,315,264

Where:

Qi – Instantaneous Flow rate - is the maximum flow rate in gpm of product that can be simultaneously loaded.

Q15 – 15 Minute Loading Volume – Is the maximum volume of product in gpm that can be loaded in 15 minutes.

Q1 – Is the maximum volume of product in gpm that can be loaded in one (1) hour.

Q4 - Is the maximum volume of product in gpm which is expected to be loaded in any continuous four (4) hours period.

Q24 - Is the maximum volume of product in gpm which is expected to be loaded in any continuous twenty four (24) hours period.

The VRU will be equipped with two identical adsorber vessels filled with activated carbon. One adsorber will be on stream receiving vapors in the adsorption mode while the other adsorber will be off stream in the regeneration mode.

Switching valves are provided to automatically alternate the absorbers between adsorption and regeneration, which assures uninterrupted vapor processing capability. The VRU will automatically start when a loading operation is ongoing and shutdown in a standby mode when the operation is complete.

During adsorption, the inlet hydrocarbon vapor-air mixture to be processed flows up through the on stream adsorber vessel. In the adsorber, the activated carbon adsorbs the hydrocarbon vapor and allows clean air to vent from the bed with only minimal hydrocarbon content.

During regeneration, previously adsorbed hydrocarbon vapor is removed from the carbon and the carbon's ability to adsorb vapor is restored. Carbon bed regeneration is accomplished with a combination of high levels of vacuum and purge air stripping. At the end of the regeneration cycle, the adsorber vessel is re-pressurized and then is placed back on stream.

A dry vacuum pump (DVP) is the source of vacuum for carbon regeneration. The DVP extracts concentrated hydrocarbon vapor from the carbon bed, and discharges directly into the recovery device, a vertically packed absorption column. To limit the vapor temperature inside the DVP, absorbent is circulated through the outside jacket and is injected directly into the vacuum pump.

The design provides the option of installing a vacuum booster blower at the suction of the dry vacuum pump to increase carbon bed regeneration capacity. The addition of the booster blower allows the carbon bed to be regenerated under a higher vacuum (lower absolute pressure) and provides significantly higher pumping capacity at high vacuums than is possible through the use of only the vacuum pump. An enhanced vacuum system more thoroughly regenerates the activated carbon and can, as a result, provide the benefit of use of less carbon or higher capacity at the same bed size.

In the absorber vessel, the hydrocarbon vapor from the DVP flows up through packing, while a hydrocarbon liquid, typically from one of the storage tanks, flows down through packing. Inside the absorber, the vapor is liquefied, and the recovered hydrocarbon is returned back to the absorbent storage tank. A small stream of air and residual vapor exits the top of the absorber and is recycled to the on stream carbon bed for re-adsorption.

A lean absorbent supply pump and a rich absorbent return pump will be provided to circulate the required absorbent.

3.10. TST Piping System

3.10.1. Codes and Standards

Piping systems shall be laid out and designed in accordance with the requirements of the Federal, State and City of Stockton agencies having jurisdiction over the work and in accordance with the following codes and standards:

- ASME B31.3: "Code for Pressure Piping"
- ASME B-31.4: "Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids"
- Title 29 Code of Federal Regulations (CFR) 1910, OSHA Occupational Safety and Health Act Rules and Regulations.
- Title 49 Code of Federal Regulations (CFR) Part 195, Transportation of Hazardous Liquids by Pipeline.

- NFPA 30: "Flammable and Combustible Liquids Code".

3.10.2. Piping Design

The loading rack piping will be designed to allow for shop fabrication on skids. TST piping systems will be designed to efficiently utilize space and to provide for ease of operation and maintenance. Piping will be routed above grade to the maximum extent possible. The exceptions will be incoming pipeline facilities, tank farm fire foam lines and opened and closed gravity drain systems.

3.11. Site Improvements

The TST will be located in the Port of Stockton in the presently semi-improved section of Port north of the Pacific Ethanol Plant. The site covers approximately 17+/- acres. Entry to the TST will be from the Pacific Ethanol Entry Roadway off of Navy Drive. A new road will be required with an intersection near the entrance security gate for Pacific Ethanol. The entry road to the TST will be located along the western boundary of the Pacific Ethanol Lease. The rail loop borders the entire northwest, north, and north east portions of the TST project area.

The new access road along the west portion of the Pacific Ethanol Lease boundary will provide vehicle access and egress by means of a driveway to a parking lot for passenger vehicles. Fuel transport vehicles will access and leave the TST through dedicated, gated, traffic controlled driveways.

Upon entering the TST, fuel transport vehicles will park in the truck loading rack staging area until the assigned loading bay is available. After completing the loading operations, the vehicle will leave the truck loading rack to make room for the next transport vehicle. The driver will park the truck and pick up the bill of lading. Vehicle staging and exit parking areas as well as the Control Building and Maintenance Building parking areas will be finished in asphalt concrete paving.

A road will be constructed around the storage tank farm. The road will be used as a fire access road and for maintenance purposes. This road will be paved with crushed rock.

Fuel will be delivered to the TST by means of two (2) pipelines. In addition to off- site pipeline facilities, the construction of receiving facilities will be required. Ethanol receiving facilities will include the rail car off-loading facilities and an overhead pipeway to the ethanol storage tanks. These facilities will include foundations and slabs for the receiving equipment. A 4000 gallon double wall tank will be installed for drain down of the receiving equipment when maintenance is required. Product drained to the tank will be pumped to the appropriate storage tank. A sample shed will be installed in this area.

Pipeways will be constructed to support above grade piping from the incoming product distribution manifold to the storage tanks, from the storage tanks to transfer pumps to the truck loading racks, from ethanol off-loading to ethanol storage, to and from the VRU and to and from additive storage.

The Truck Loading Rack (TLR) will be constructed to facilitate loading of tanker trucks with trailers. The prefabricated steel canopy will be constructed to support an overhead pipeway. Each loading bay will be constructed of steel and will include product metering and control equipment and loading arms. The soil beneath the TLR will be over-excavated and recompacted as required for the canopy and loading bay foundations. A berm will be constructed along the truck entrance and exit sides of the TRL to prevent rain water from entering the spill containment area. Curbs will be constructed along the other sides of the TRL.

The following buildings will be installed on site: Control Building, Maintenance Shop,

Bill of Lading Building with Drivers Facilities, and Sample Shed. These buildings are described in more detail below.

The grade of the finished site will be generally sloped from west to east. The trees will be planted along the new access road to the TST. The site will be secured by means of a 6-foot high chain link fence with three strands of barbed wire on top.

3.12. TST Stormwater Runoff Plan

The TST project site will be subdivided into areas classified according to the means of handling drips, spills and storm water. The area classifications are as follows:

Tank Farm

A dike will be constructed around the tank farm at a sufficient height to contain the contents of the largest tank plus 10% of the volume of that tank. The installation will meet the requirements of EPA regulations (40CFR112) and NFPA 30. The tank farm area will be prepared with an impervious layer of soil. Spills or drips inside the containment area will be prevented from entering the storm water system. Storm water will also be contained in the tank farm. Rainwater will be collected at the low point of area and tested. Contaminated water will be removed by vacuum truck or other means. Uncontaminated rainwater will be discharged to the storm water drain system.

Natural Drainage

The TST's peripheral areas including landscaped areas, paved walkways, crushed rock roadways and building roofs will be drained naturally by percolation into the soil or by surface runoff to the storm water collection and discharge system.

Contact Water

Areas containing small tanks, process or product handling equipment, product loading or unloading operations, or maintenance areas where small quantities of product can be dripped or spilled, are considered contact areas. These areas will be curbed or diked as required to contain such drips or spills as well as storm water in the amount required by the local jurisdiction. After a storm event the water will be tested. Tested water meeting the quality requirements will be discharged to the storm water system. Contaminated water will be discharged to the oily-water separator or removed by vacuum truck or other means.

Truck Loading Rack Canopy

Storm water from the loading rack canopy will be discharged to the storm drain system.

AC Paving

Storm water from driveways and parking areas will be discharged to the storm drain system.

Ethanol Unloading Area

The ethanol unloading area will be treated as a contact water area. Drips, spills and storm water will be gathered in pans installed under the railroad tank cars. Collected storm water from the pans will be tested and, if uncontaminated, will be released to the storm drain system. If testing reveals that the gathered water contains excess ethanol, it will be discharged into the oil/water separator or removed directly from the pans by a vacuum truck for treatment off site.

According to the Western Regional Climate Center, the project local safe design rainfall level is 5 inches. All drain valves, pipes, gutters, leaders and pavement slopes will be designed on that premise and all storm water discharges will be in strict compliance with NPDES requirements.

3.13. Oil Water Separator

The TST's contaminated surface water, designated as Contact Water, will be the product of rain or wash water in contact with petroleum products stored on site. The expected concentration levels of the contact water will necessitate direct discharge into an oil/water separator prior to the clarified water entering the sewer system. Sources of contact water include areas containing small tanks, process or product handling equipment, product loading or unloading operations, and maintenance areas. A valve isolating these areas from the oily water separator will normally be kept closed, preventing spilled product from entering into the separator. The valve will only be opened when treatment of contact water is required.

The product storage tanks will be equipped with a low point sump with a water draw connection. Water entrained in the product during the refining process or during transportation or storage, will settle to the sump for removal. The water will be removed through a closed piping system that discharges into the Oily-Water Separator.

A 2000 gallon oil/water separator with a capacity to treat continuously 75 GPM of oily water, will be installed at the lowest point on the project site near the eastern limits of the site. It well be double wall carbon steel, epoxy coated and will be furnished with a sediment basket, coalescing pack, cathodic protection and leak detection. The separator will be monitored on a routine schedule and the collected oil well be removed as appropriate in accordance with the SPCC requirements.

3.14. TST Fire Protection

3.14.1. General

The fire protection system will provide protection for the storage tanks, the truck loading rack and the control building. The system will include a 10-inch fire water loop with hydrants and monitors that are being fed by the city water main via a back flow preventer. The foam system will supply foam solution to the storage tanks and to the loading racks. The control room will be protected by Inergen fire suppression system.

3.14.2. TST Storage Tanks

Storage tank T-5 will be provided with one fixed foam discharge chamber outlet. All other tanks will be provided with two outlets chambers. The required minimum application rate of fixed foam discharge protection for top-of-seal floating roof tanks

is 0.3 gpm/sq.ft., and the minimum discharge time is 20 minutes.

The foam solution piping fabrication and installation will comply with the latest edition of NFPA Standard 11 for low expansion foam and combined agent systems. The foam solution pipe will be carbon steel ASTM A53, schedule 40 and will meet the project requirements. A foam tote will be located near the foam injection manifold. A foam trailer will be stored on site for use as required with the fire monitors.

The vertical piping on the protected tanks shall be provided with one brace at each shell course. One flange shall be provided in each riser at a convenient location, to permit hydrostatic testing of the piping system up to that joint.

3.14.3. TST Truck Loading Rack

The deluge foam-water sprinklers and foam-water spray systems at the loading racks will be in compliance with the latest edition of NFPA Standard 16. The foam application rate for the loading rack will have a foam solutions rate between 3,400 and 5,440 gallons per minute based on the truck loading rack servicing ethanol and gasoline with a square footage of 34,000 feet, application rate of 0.10 to 0.16 gallons per minute per square feet, and a five to eight inch pipe size.

3.14.4. Control Room

The Inergen fire suppression system will be designed for an assumed 600 sq. ft. of sensitive equipment space and it will include 4 discharge nozzles, heat detection sensors, control panel and a 15 square foot closet to house 7 product cylinders.

3.14.5. Appurtenances

The emergency deluge system will consist of two combination emergency shower, eye-face wash and drench hose units, located at the west side of the truck loading area. They will be provided with tempered water, freeze protection and controls. The fire water line, fire connections, hydrants, valves and pipe fittings will comply with the latest edition of NFPA Standard 24 for Private Fire Service Mains and their Appurtenances. Hydrant valves are required.

3.14.6. Codes

The fire protection shall meet the requirements of the Uniform Fire Code, NFPA 30: "Flammable and Combustible Liquids Code", NFPA 11: "Low-, Medium- and High-Expansion Foam", NFPA 13: "Installation of Sprinkler Systems", NFPA 16: "Installation of Foam-Water Sprinkler and Foam Water Spray Systems", and NFPA 24: "Installation of Private Fire Service Mains and Their Appurtenances", and the requirements of the local jurisdiction.

3.15. Electrical Power Requirements

3.15.1. Incoming Power

PG&E will provide an incoming two 2500 amp 480V service. PG&E will install a transformer to transform their supply voltage to 480V to supply the TST motor control center. The incoming service will be from PG&E pole line brings power to the center of the project site and Pacific Ethanol.

3.15.2. Motor Control Center

There will be two (2) Motor Control Centers. One at the incoming location next to the PG&E transformer and one at the corner of the tank farm near the loading rack. They will be installed in a Non-Hazardous area. The Motor Control Centers will have a lighting panel to supply all 120V circuits on the site except the major buildings. The major buildings will be supplied with a feeder to a building transformer and lighting panel. The Motor Control Centers will be NEMA 3R non-walking, shall contain the incoming and metering section for PG&E and consist of a number of vertical sections. They will contain all starters and feeder breakers for the facility. They will be designed with Size 4 contactors which will supply motors of 60, 75 or 100 HP so that final design changes won't affect the Motor Control Center. They will be sized to handle the projected design loads on a connected load basis to secure the permit.

3.15.3. Vapor Recovery Unit

The Vapor Recovery Unit will be a self-contained unit with its own PLC control. It will be supplied with a 480V feeder. There will be an interconnection between the Vapor Recovery Unit and the rack loading system. If the Vapor Recovery Unit is down then the permissive to the load rack control system will be removed and the rack will shut down. There will be a gasoline supply pump at a Regular tank controlled from the Vapor Recovery Unit package.

3.15.4. Oil Water Separator

There will be an underground Oil Water Separator installed near the corner of the tank farm. There will be a product pump and a water pump controlled by level switches in the Oil Water Separator. The product pump will pump to Transmix and the water pump will pump to the sewer. The Oil Water Separator will be doubled wall and will have leak detection installed in the annular space. It will alarm on detection of a leak.

3.15.5. Fire Protection

There will be a fire detection system at the load rack. On activation of the signal there will be shutdown by removal of a permissive to the rack loading control system. This will shutdown rack loading.

3.15.6. Lighting

Lighting will be provided for the tank farm, load rack canopy and general area lighting and will be photo cell controlled. Lighting for the tank stairs will be on a switch at the bottom of the stairs. General area lighting will be provided for railcar offloading. Lighting will be Metal Halide for good color rendition.

3.15.7. Grounding

Grounding will be installed per the National Electrical Code for all equipment, structures, electrical services and storage tanks. Ground rods will be installed for purposes of grounding. All equipment structures and electrical services will be connected to a ground rod. The tank farm will have a continuous ground loop system with tanks connected to two (2) ground rods at 180 degrees apart.

3.16. Instrumentation and Control

3.16.1. Kinder Morgan Takoff/Incoming Facility

This will include incoming control valve, relief valve, motor operated valves, meter, meter prover, temperature transmitter and pressure transmitter. The control valve will control on downstream pressure. The relief valves will have limit switch input to the PLC and will shutdown incoming batches if they relieve. The PLC will control meter proving. The PLC will be capable of remote communication to Kinder Morgan. The Kinder Morgan incoming piping facilities will feed to the TST hydraulic operated valve (HOV) manifold.

3.16.2. TST Receiving Facility

The incoming hydraulic operated valves will be manually operated from the Sample Shelter with the Operator catching batch changes at the Sample Shelter. The tank valves will be motor operated, manually controlled. The Sample Shelter will be equipped with a sample sink and fume hood with sample lines from the incoming pipelines. There will be a drain down sump for draining the prover, piping, sample sink and double block and bleed valves. It will have level indication input to the PLC for high level alarm and will pump out to the Transmix tank.

3.16.3. Rack Control System

The load rack will have a loading rack preset control system (i.e. Smith Accuload III or Toptech Multiload) and a Terminal Automation System (TAS) for load rack accounting (i.e. Diamomnd G3 or Toptech TMS). It will perform all ratio blending, additive injection and load rack accounting. It will provide a Bill of Lading for each load. It will be connected to the tank gauging system for tank inventories. It will store and verify all driver, truck and customer information. It will provide the capability for shippers to retrieve daily load information remotely.

3.16.4. Load Rack Blend Skids

Each lane will consist of two (2) prefabricated skids, one for front and one for rear. Each blend load arm will consist of a separate meter run for each component of the blend to be loaded simultaneously through the common load arm. Each blend meter run will consist of a turbine meter, RTD

temperature probe and digital control valve which will be wired to the rack preset equipment on the skid so it can be assembled and tested in the shop before shipment. The skid will have additive injectors mounted on the skid and wired to the rack preset equipment. The skid will contain a Scully overfill and ground detection system mounted on the skid and wired to the rack preset. The lane card reader will be mounted on the lane near the rack preset equipment. The driver will card on first then proceed to the rack preset to enter his batch totals. When done he will proceed to the BOL Building at the exit to obtain his BOL which will print automatically.

3.16.5. Tank Gauging

The tanks will have an automatic tank gauge system. They will have tape side gauges with tank transmitters inputting to an office computer (i.e. L&J). The tank gauging system will be connected to the rack control system for inventory control. It will provide a computer screen displaying all tank data and level alarm set points and alarms. In addition the tanks will have a separate redundant high level alarm system consisting of level switches mounted on each tank and inputting to a Programmable Logic Controller.

3.16.6. Programmable Logic Controller (PLC)

PLC will handle incoming facilities control and indications for Kinder Morgan. This will include incoming control valve, relief valve, metering, meter proving and valve position indication. The hydraulic operated valves will be controlled manually but have position switch indication to the PLC. The PLC will be capable of remote communication to Kinder Morgan. A TST PLC will be installed in the Control Building with a Human Machine Interface (HMI, personal computer). This will be used for the tank redundant high level alarms and pump sequencing. The redundant alarms will give an alarm on the HMI screen. The inputs from the rack control system will be used to sequence the pumps with PLC outputs.

3.16.7. Communications

Site communications will include commercial phone lines and a number of data circuits for offsite communications with customers for truck loading data or other needs. Phone lines will be provided to the Control Building, Maintenance Building and Bill of Lading (BOL) Building. Data circuits will be provided from the Terminal Automation System (TAS) system for shipper communications. A separate room will be provided in the Control Building for the TAS system, PLC and camera system equipment.

3.16.8. Security

Truck entry and exit gates shall be controlled. The truck entry gate shall have a card reader for entry and the exit gate shall have a magnetic loop. Cameras will be installed for perimeter security and rack loading. They will connect to a monitor and digital video recorder in the Control Building. There will be a camera on each load lane, the entry and exit gates and the facility perimeter. There will be public access to the front of the Control Building only and not to the interior of the facility.

3.16.9. Uninterruptible Power Supply (UPS)

An uninterruptible power supply (UPS) will be installed in the computer room in the Control Building for the Terminal Automation System, PLC and Camera equipment.

3.16.10. Emergency Shutdown (ESD)

There will be an emergency shutdown system of hard wired ESD pushbutton switches in the TST. The ESD system will shutdown all rack loading by means of a permissive to the rack control system. This will close all control valves on the rack and remove the product and additive pump

signals. It will be a hard wired shutdown for all pumps in the TST which will stop all loading and offloading.

3.17. Cathodic protection

3.17.1. Terminal

Cathodic protection will be provided by a deep well anode impressed current system to protect buried piping and tank bottoms. The majority of piping will be above grade.

3.17.2. Kinder Morgan Pipeline Extension

Cathodic protection will be provided for the new Kinder Morgan pipeline extension and the incoming facilities. An insulating flange will isolate the Kinder Morgan facilities from the TST facilities.

3.18. Site Structures

3.18.1. Design

The steel structures included in the TST design include: equipment skids and racks, pipe supports, stiles, loading racks and the loading rack canopy. Pipe supports, pipeways and sleepers will be designed to optimize terminal operations and maintenance. Consideration for future expansion will be included in the design. The use of above grade piping and conduit runs will be maximized. Space will be provided for conduit on the pipeways and sleepers. Pipeways and sleepers will be designed to allow room for 10% expansion. The loading racks will be constructed on skids in a shop. The loading rack canopy will also be shop fabricated.

3.18.2. Codes and Standards

Structures will be designed to comply with applicable ACI, AISC, AWS and ASTM Standards and with the requirements of federal, state and local jurisdictions having authority.

3.19. Site Buildings

The Terminal will include the following buildings: Control Building, 2400 sq. ft.; Maintenance Shop, 900 sq. ft.; Bill of Lading Bldg with Drivers Facilities, 480 sq. ft.; and Sample Shed, 100 sq. ft. The Control Building will include the control room, office for the terminal manager, restroom facilities, lockers for the operators, as well as the terminal control panels and control equipment. The maintenance shop will include restroom facilities, lockers for maintenance staff, office for the terminal maintenance manager as well as workshop and storage space. The bill of lading building will include driver's restroom facilities, desk and public telephones. The sample shed will house the equipment used to identify and control product batch changes. This building will not normally be occupied.

3.19.1. Architectural Treatment

The Control Room building will be a pre-engineered / prefabricated steel metal shell designed and constructed to meet the requirements of the California Code of Regulations, Title 24. The interior walls will be constructed of metal studs with wall board finishes. Suspended acoustic ceilings will be installed in the offices control room and control equipment room. The roof will be reinforced to accommodate installation of mechanical equipment.

The maintenance shop, bill of lading building, and sample shed will also be a pre- engineered / prefabricated steel metal shell designed and constructed to meet the requirements of the California Code of Regulations, Title 24.

3.19.2. Structural Systems

The prefabricated buildings will be installed on concrete slabs with footings designed and constructed to meet the building requirements of the local, State and Federal agencies having jurisdiction.

3.19.3. Plumbing Systems

Plumbing and drainage will comply with the criteria contained in the Uniform Plumbing Code (UPC). One male and one female restroom will be provided at the Control Room building and will be equipped with

ADA required fixtures. Other plumbing facilities will include a janitorial sink, drinking fountains of the electrically cooled type and hose bibs to serve the cleaning requirements outside the building. Sanitary waste piping from the restrooms will be routed to a common line, which will ultimately be discharging to the sewer.

The maintenance shop restroom facilities will be designed in a manner similar to that of the Control Room building and the workshop area will be provided with a common trench drain centered on the long axis of the shop. Piping from this drain will be routed to the oil/water separator before discharging into the sanitary sewer.

3.19.4. Mechanical and HVAC Systems

Two 5-Ton package rooftop units will be used for the control building. Pressure and humidity control will be provided only where the environmentally sensitive electronic equipment is located or where required due to electrical area classification. The maintenance shop storage and lockers areas will be served by a two-stage evaporative cooling unit equipped with a gas heater for cooling, heating and ventilation. The office and restroom areas of the maintenance shop will be served by a 3-Ton package rooftop unit.

Gravity ventilators will be provided for building air pressure relief. All systems will be equipped with manual on-off panel switches to provide an efficient level of control and operation while minimizing the equipment energy use in consistence with Title 24 requirements. Package rooftop exhaust air systems will be provided for maintenance areas and toilet exhaust requirements.

4.0 Codes & Standards Governing Design & Construction

The Proposed Project would be designed, constructed, and operated in accordance with the following codes, standards, and specifications applicable to industrial structures and marine terminals in northern California generally, and marine oil terminals, tank farms, and pipelines in particular.

- Maritime Transportation Security Act of 2002 (46 Code of Federal 7 Regulations [CFR] 701 and 33 CFR 101-106)
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (40 CFR 300): National Oil and Hazardous Substances Pollution 10 Contingency Plan)
- U.S. Department of Transportation (DOT): Title 49 CFR, Chapter I, DOT, Part 195 (Design, construction, maintenance, and operation of pipelines)
- California State Lands Commission: "Marine Oil Terminal Engineering and Maintenance Standards," (MOTEMS) Chapter 31F, Title 24, Part 2 California Code of Regulations (2004)
- State of California: Senate Bill (SB) 2040 (Hazardous materials 17 security)
- California Department of Transportation: Standard Provisions; Seismic 19 Design Criteria, Version 1.3 (February 2004)
- San Joaquin Valley Air Pollution Control District (SJVAPCD): Rule 2010, Best Available Control Technology (BACT), Petroleum Storage Tanks
- City of Stockton Municipal Code: Title 15 Building Code
- Port of Stockton District: Marine Oil Terminals, Tank Vessels, and Barges Fire Code

- National Fire Protection Association: Standards 20 (Standard for the Installation of Stationary Pumps for Fire Protection), (Installation of Private Fire Service Mains and Their Appurtenances), (Flammable and
- Combustible Liquids), (National Electrical Code, applicable sections), and 307 (Construction and Fire Protection of Marine Terminals, Piers and Wharfs) International Code Council: Uniform Building Code
- American Petroleum Institute (API) Recommended Practices (RP) and Standards:
    - RP 500C Classification of areas for electrical installation of petroleum and gas pipeline transportation systems
    - RP 2003, Protection against ignitions arising out of static, lightning and stray currents
    - Standard 650, Welded Steel Tanks for Oil Storage
    - Standard 653, Tank inspection, repair, alteration, and reconstruction
    - Standard 1104, Welding Pipe Lines and Related Facilities
- American Society of Mechanical Engineers (ASME)/American National Standards Institute (ANSI): B31.4, "Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols," (use latest edition at time of design)
- Oil Companies International Marine Forum (OCIMF), International Chamber of Shipping (ICS) and International Association of Ports and Harbors (IAPH): International Safety Guide for Oil Tankers and Terminals (ISGOTT), 5th edition, 2006 (relevant sections)
- OCIMF: Mooring Equipment Guidelines; Fire Protection and Emergency Evacuation Guide
- Military Handbook (MIL-HDBK) Structural Engineering Sections:
    - 1002/1, General Requirements (30 Nov. 87);
    - 1002/2A, Loads (15 Oct. 96)
    - 1002/3, Steel Structures (30 Sep. 86)
    - 1002/4, Concrete Structures (Sep.86); 1002/5, Timber Structures (30 Mar. 87)
    - 1025/1, Piers and Wharves (30 Oct. 87)
- Port International Navigation Association (PIANC): Guidelines for the Design of Fender Systems
- International Maritime Organization: International Ship and Port Facility Code
- American Concrete Institute: Building Code Requirements for Structural Concrete ACI 318
- American Institute of Steel Construction (AISC): Manual of Steel Construction (Load and Resistance Factor Design, and Allowable Stress 38 Design), 13th Edition, 2006
- American Welding Society: Structural Welding Code - Steel, AWS D1.1; Structural Welding Code for Bridge Structures ANSI/AWS D1.5

5.0 Project Drawings & Plans

Storage Tank Details & Undertank Leak Detection

General Site Plan with Topographic map

Berth Layout Plan

Typical Tank Containment System

Site Elevation Plan

Truck & Trailer Loading Rack Arrangement

Truck & Trailer Loading Rack Arrangement

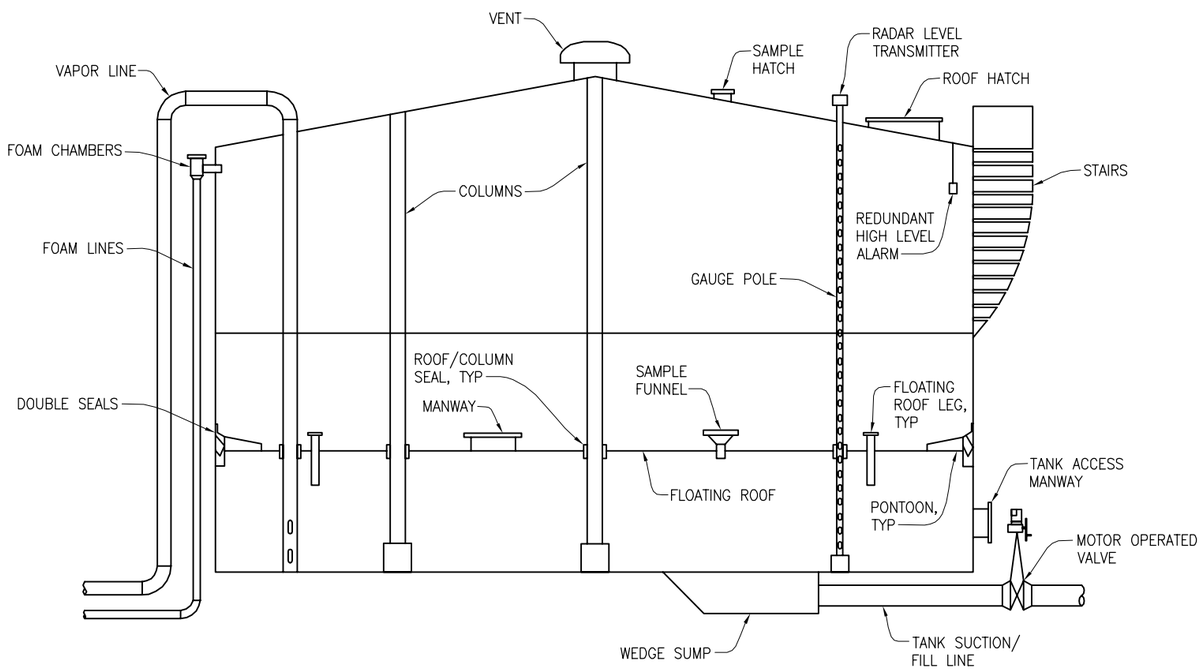
Contact Water to Oily Water Separator

General Site Plan with Aerial Photo

Grading Plan

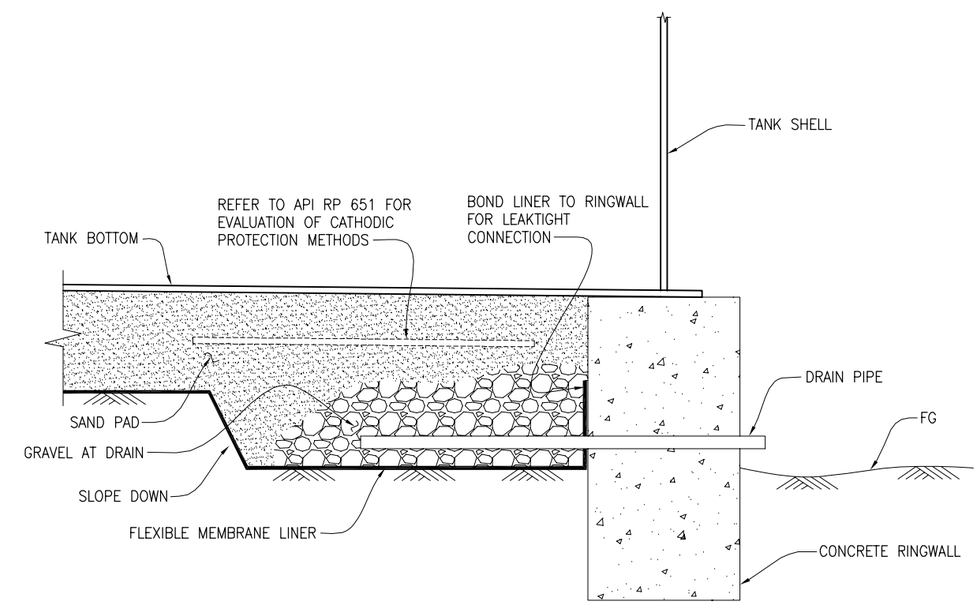
Stormwater Classification

Pipeline Route & Connection Map



TYPICAL TANK DESIGN

1/4"=1'-0"



UNDERTANK LEAK DETECTION

1"=1'-0"

REV.	DESCRIPTION	BY	APP.	CHKD

TRC

STORAGE TANK DETAILS

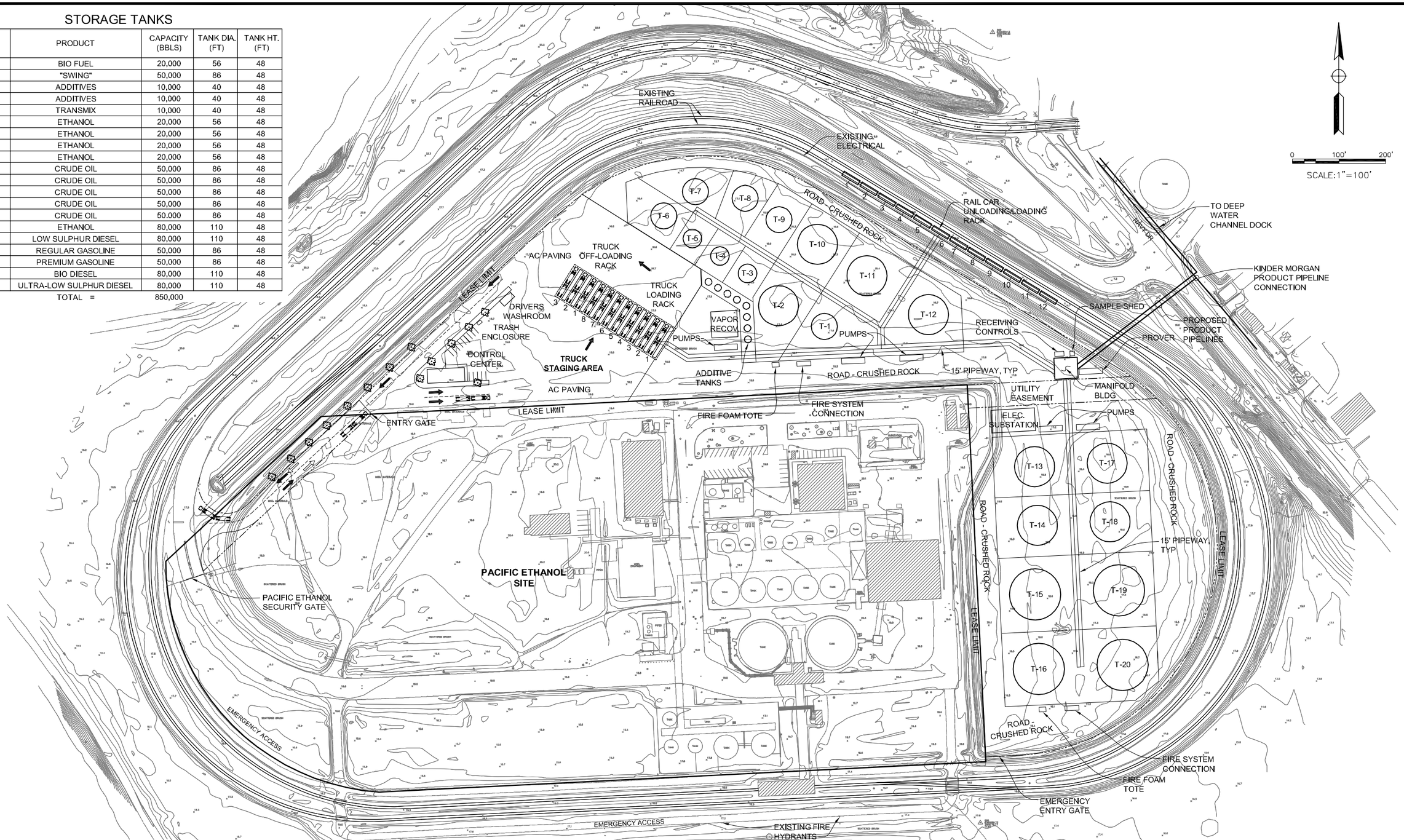
DATE:	SCALE:
BY:	FIGURE:

TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**

STORAGE TANKS

TANK NO.	PRODUCT	CAPACITY (BBLS)	TANK DIA. (FT)	TANK HT. (FT)
T-1	BIO FUEL	20,000	56	48
T-2	"SWING"	50,000	86	48
T-3	ADDITIVES	10,000	40	48
T-4	ADDITIVES	10,000	40	48
T-5	TRANSMIX	10,000	40	48
T-6	ETHANOL	20,000	56	48
T-7	ETHANOL	20,000	56	48
T-8	ETHANOL	20,000	56	48
T-9	ETHANOL	20,000	56	48
T-10	CRUDE OIL	50,000	86	48
T-11	CRUDE OIL	50,000	86	48
T-12	CRUDE OIL	50,000	86	48
T-13	CRUDE OIL	50,000	86	48
T-14	CRUDE OIL	50,000	86	48
T-15	ETHANOL	80,000	110	48
T-16	LOW SULPHUR DIESEL	80,000	110	48
T-17	REGULAR GASOLINE	50,000	86	48
T-18	PREMIUM GASOLINE	50,000	86	48
T-19	BIO DIESEL	80,000	110	48
T-20	ULTRA-LOW SULPHUR DIESEL	80,000	110	48
TOTAL =		850,000		



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

GENERAL SITE PLAN WITH TOPOGRAPHIC MAP

DATE:

SCALE:

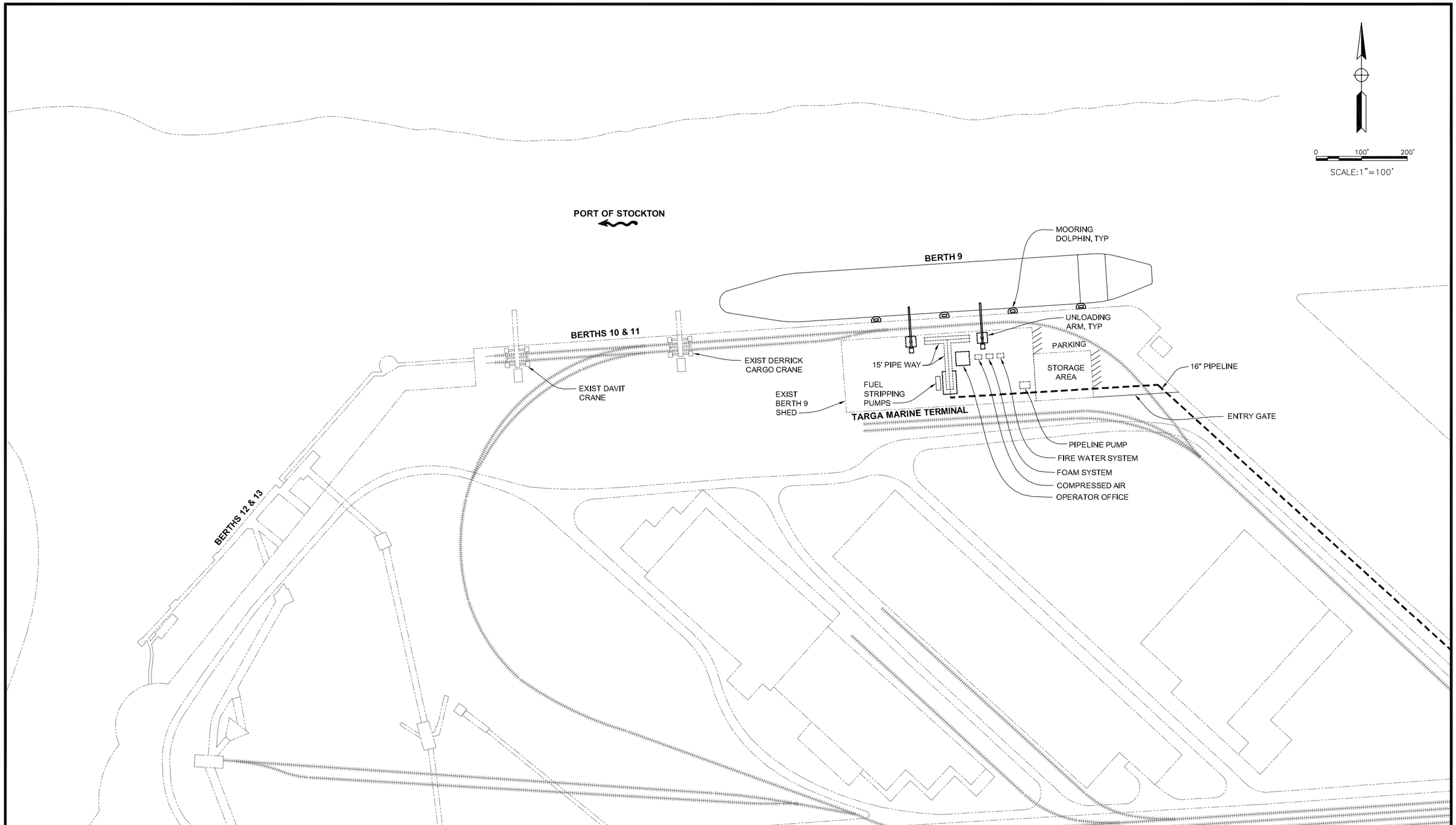
BY:

FIGURE:

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

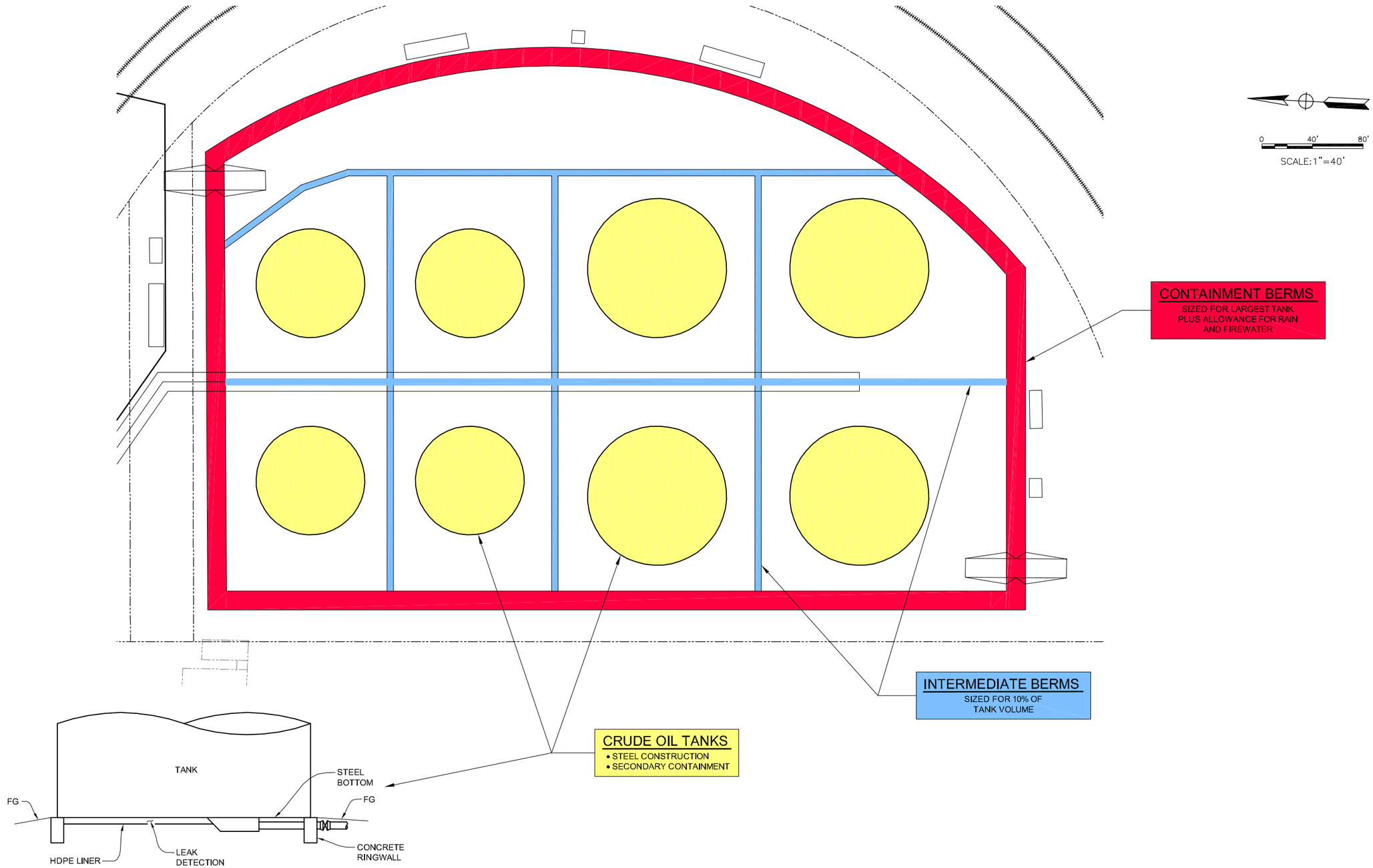
BERTH LAYOUT PLAN

DATE:	SCALE:
BY:	FIGURE:

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

TYPICAL TANK CONTAINMENT SYSTEM

DATE:	SCALE:
BY:	FIGURE:

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

REV.	DESCRIPTION	BY	APP.	CHKD

TRC

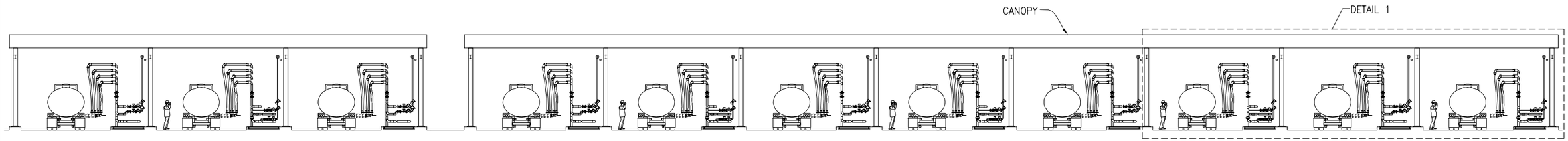
SITE ELEVATION PLAN

DATE:	SCALE:
BY:	FIGURE:

TARGA

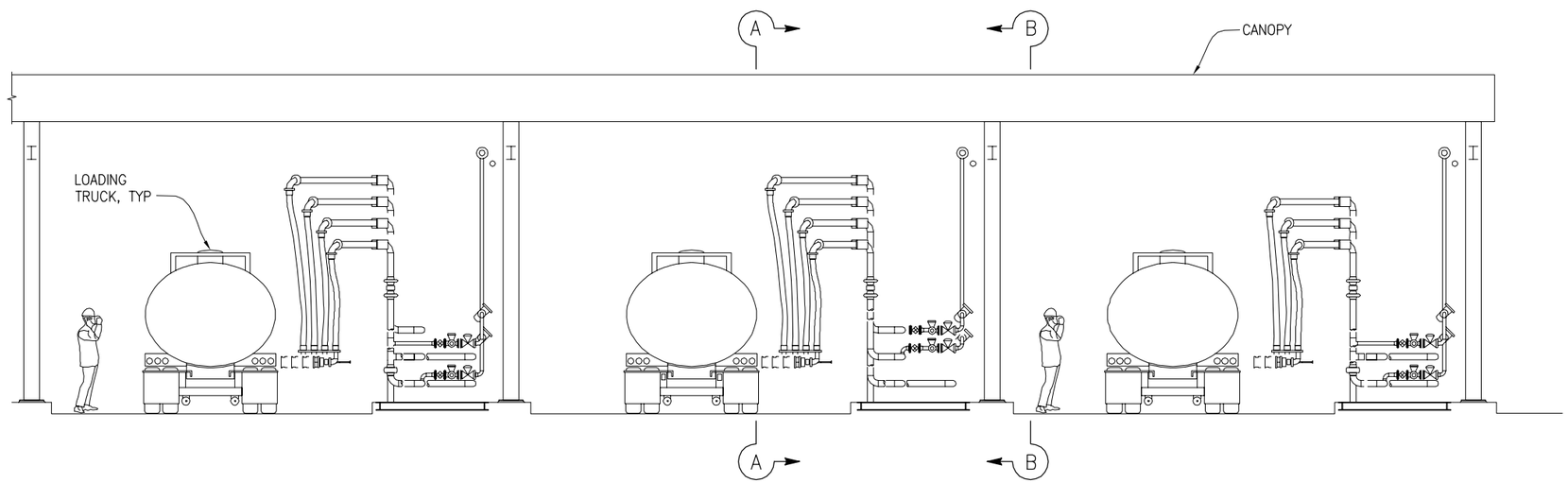
FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA



LOADING RACKS AND CANOPY

1"=10'-0"



DETAIL 1

1/4"=1'-0"

REV.	DESCRIPTION	BY	APP.	CHKD

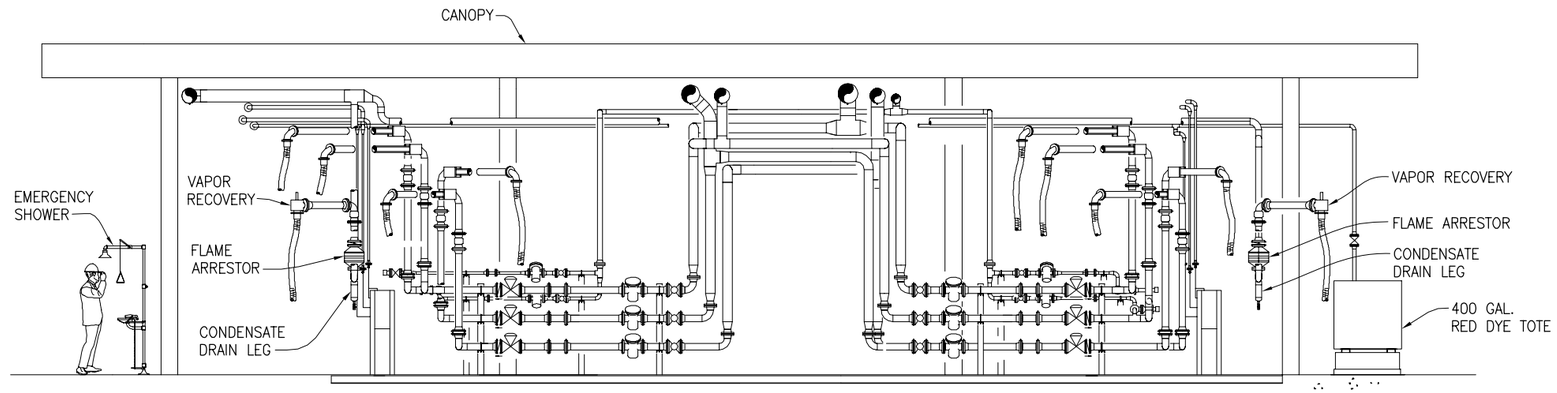
TRC

TRUCK AND TRAILER LOADING RACK ARRANGEMENT

DATE:	SCALE:
BY:	FIGURE:

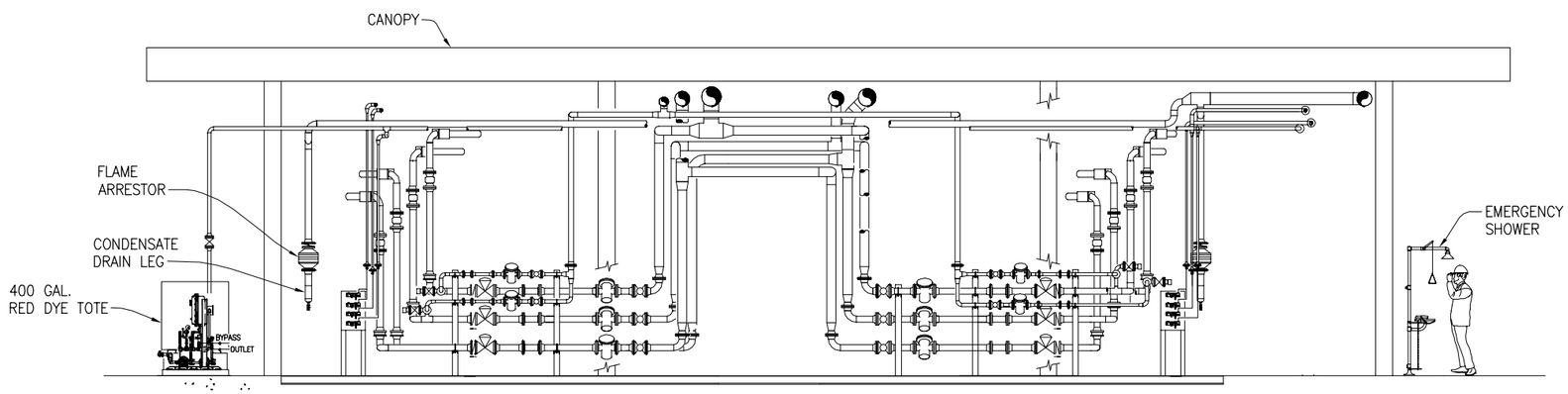
TARGA

FACILITY: **TARGA TERMINAL STOCKTON, CALIFORNIA**



SECTION A-A

1/4"=1'-0"



SECTION B-B

1/4"=1'-0"

REV.	DESCRIPTION	BY	APP.	CHKD

TRC

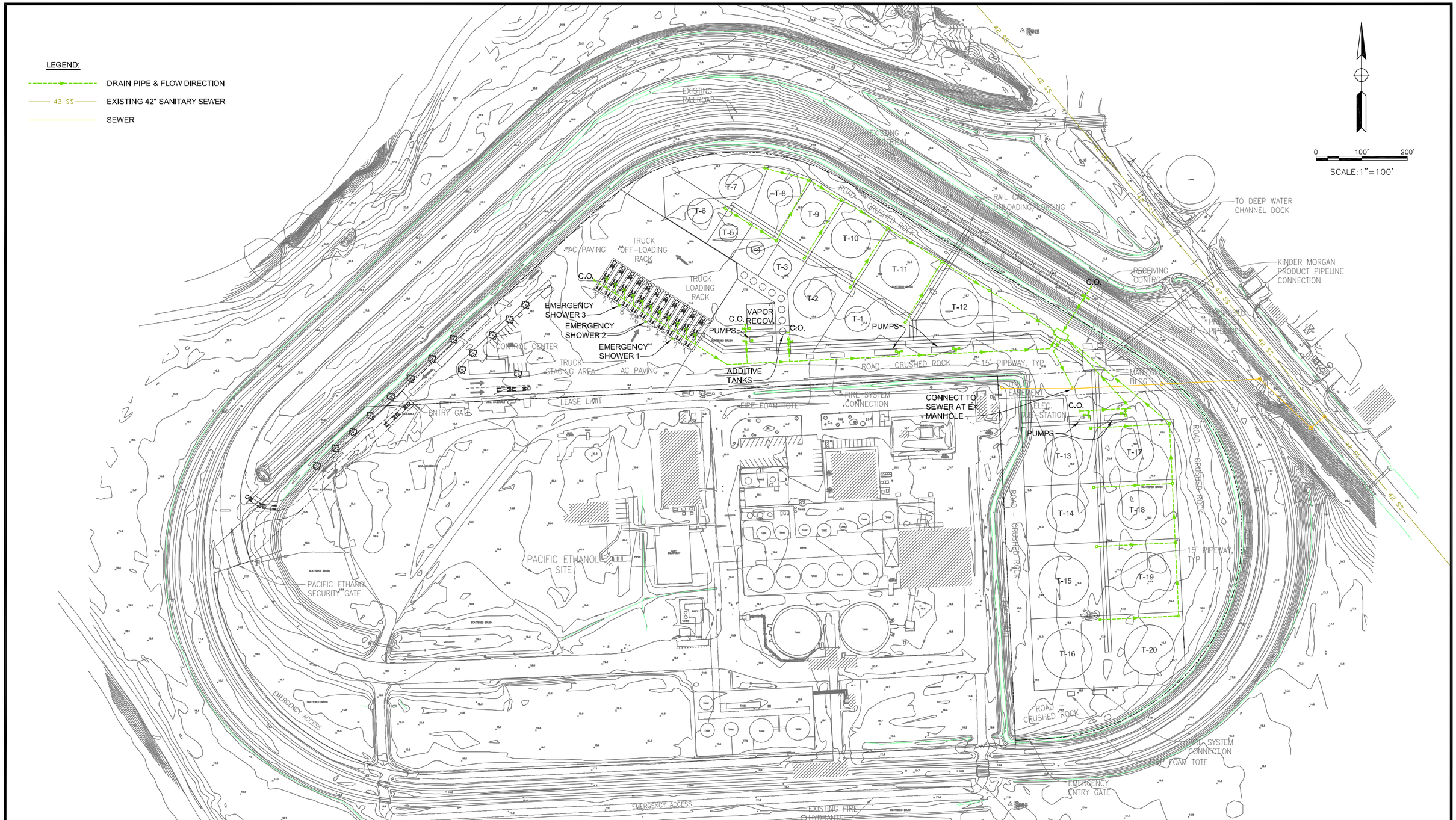
TRUCK AND TRAILER LOADING RACK ARRANGEMENT

DATE:	SCALE:
BY:	FIGURE:

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

CONTACT WATER TO OIL WATER SEPARATOR

DATE:	SCALE:
BY:	FIGURE:

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

STORAGE TANKS

TANK NO.	PRODUCT	CAPACITY (BBLS)	TANK DIA. (FT)	TANK HT. (FT)
T-1	BIO FUEL	20,000	56	48
T-2	"SWING"	50,000	86	48
T-3	ADDITIVES	10,000	40	48
T-4	ADDITIVES	10,000	40	48
T-5	TRANSMIX	10,000	40	48
T-6	ETHANOL	20,000	56	48
T-7	ETHANOL	20,000	56	48
T-8	ETHANOL	20,000	56	48
T-9	ETHANOL	20,000	56	48
T-10	CRUDE OIL	50,000	86	48
T-11	CRUDE OIL	50,000	86	48
T-12	CRUDE OIL	50,000	86	48
T-13	CRUDE OIL	50,000	86	48
T-14	CRUDE OIL	50,000	86	48
T-15	ETHANOL	80,000	110	48
T-16	LOW SULPHUR DIESEL	80,000	110	48
T-17	REGULAR GASOLINE	50,000	86	48
T-18	PREMIUM GASOLINE	50,000	86	48
T-19	BIO DIESEL	80,000	110	48
T-20	ULTRA-LOW SULPHUR DIESEL	80,000	110	48
TOTAL =		850,000		

REV.	DESCRIPTION	BY	APP.	CHKD

TRC

GENERAL SITE PLAN WITH AERIAL

DATE:

SCALE:

BY:

FIGURE:

TARGA

FACILITY:

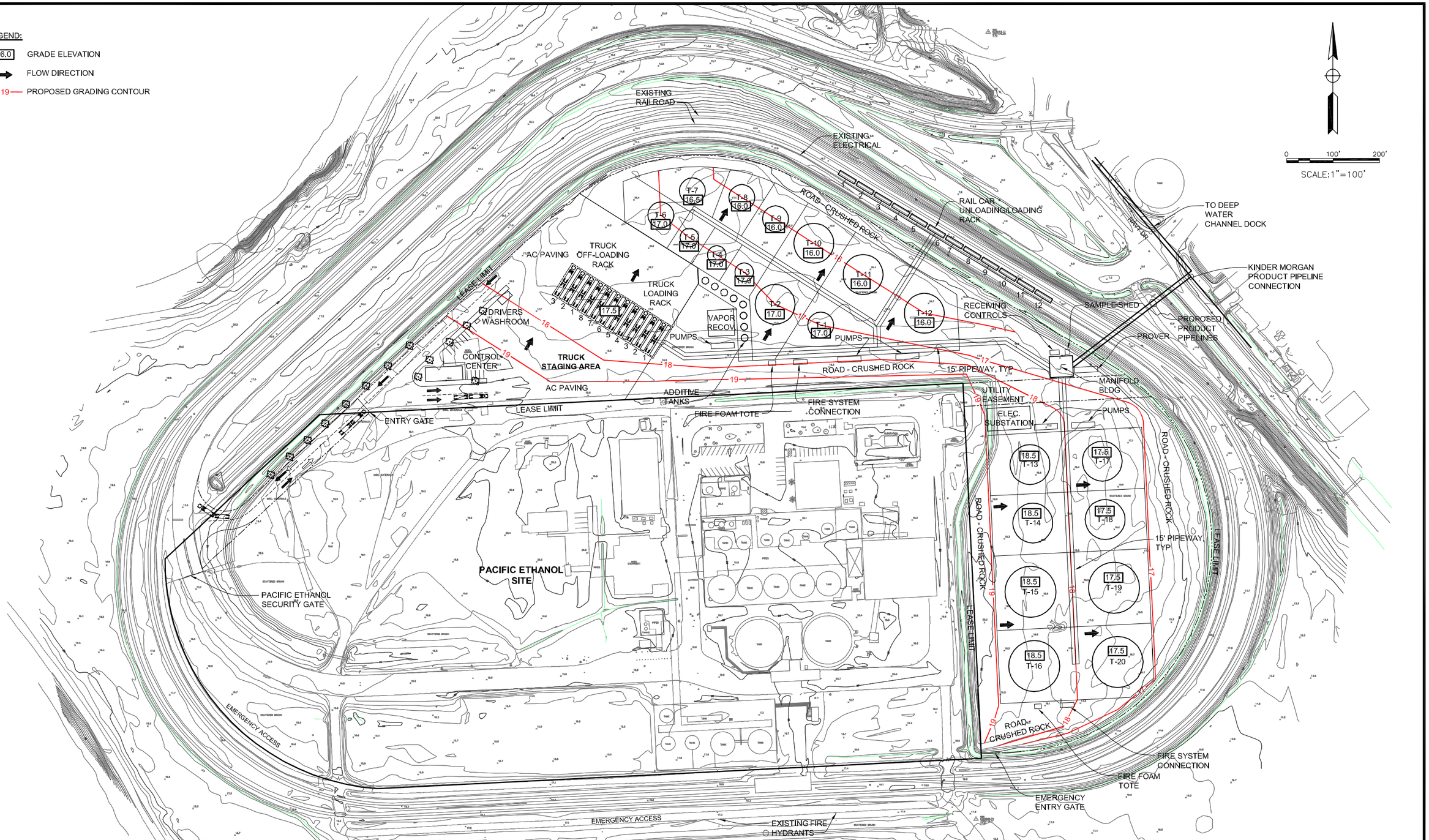
TARGA TERMINAL
STOCKTON, CALIFORNIA

LEGEND:

16.0 GRADE ELEVATION

FLOW DIRECTION

19 PROPOSED GRADING CONTOUR



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

GRADING PLAN

DATE:	SCALE:
BY:	FIGURE:

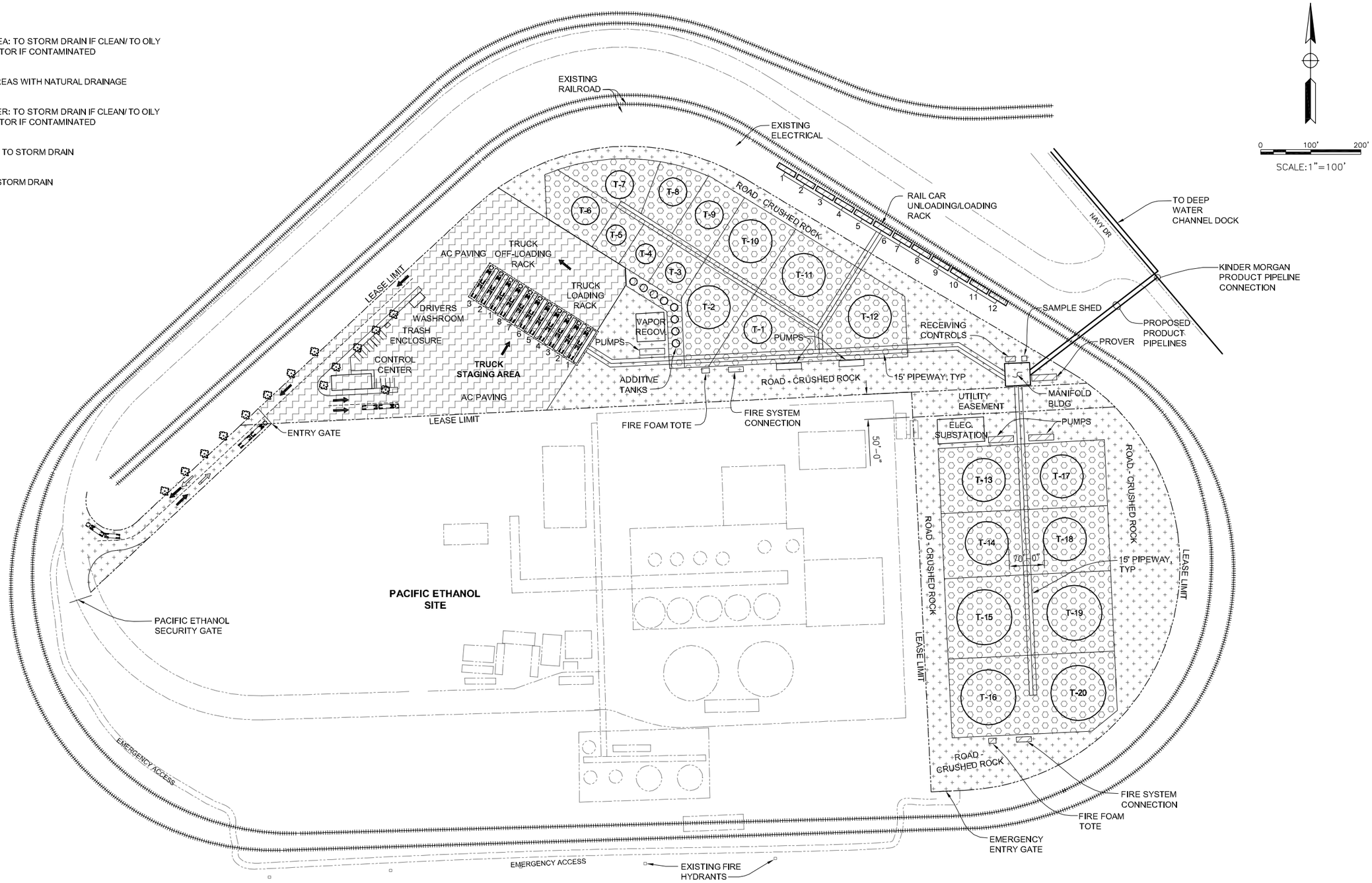
TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

LEGEND:

- TANK FARM AREA: TO STORM DRAIN IF CLEAN/ TO OILY WATER SEPARATOR IF CONTAMINATED
- PERIPHERAL AREAS WITH NATURAL DRAINAGE
- CONTACT WATER: TO STORM DRAIN IF CLEAN/ TO OILY WATER SEPARATOR IF CONTAMINATED
- TRUCK CANOPY TO STORM DRAIN
- AC PAVING TO STORM DRAIN



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

STORM WATER CLASSIFICATION

DATE:	SCALE:
BY:	FIGURE:

TARGA

FACILITY:

TARGA TERMINAL STOCKTON, CALIFORNIA

REV.	DESCRIPTION	BY	APP.	CHKD

TRC

PIPELINE ROUTE AND CONNECTION MAP

DATE:	SCALE:
BY:	FIGURE:

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

Appendix D – Lease Legal Description & Alta Survey

EXHIBIT A

Legal Description
TARGA Lease Area
Access Description over Pacific Ethanol lease site

All that real property situate in the City of Stockton, County of San Joaquin, State of California, described as follows:

All that portion of Sections 8 and 17, Township 1 North, Range 6 East, Mount Diablo Meridian, more particularly described as follows:

Commencing at GPS Occupied Point No. 306 as shown on that certain map filed for record on August 30, 1994 in Book 33 of Surveys at Page 20, records of San Joaquin County, California, said GPS Occupied Point No. 306 having the coordinates of Northing 2167315.376 and Easting 6320382.066 as shown on said map; Thence from said Point of Commencement the following three consecutive courses:

1) South 11°23'12" West 609.09 feet (described as South 11°23'12" West 609.05 feet per unrecorded lease to Pacific Ethanol provided by the Port of Stockton and assumed to be described using grid distances) to the northeast corner of said unrecorded lease to Pacific Ethanol;

2) South 87°10'52" West 1,388.43 feet (described as South 87°10'52" West 1,388.34 feet per unrecorded lease to Pacific Ethanol provided by the Port of Stockton and assumed to be described using grid distances) to the northwest corner of said unrecorded lease to Pacific Ethanol; and

3) South 47°00'55" West 455.61 feet (described as South 47°00'55" West 455.58 feet per unrecorded lease to Pacific Ethanol provided by the Port of Stockton and assumed to be described using grid distances) to the most westerly corner of said unrecorded lease to Pacific Ethanol and the **Point of Beginning** of the herein describe parcel of land;

Thence from said **Point of Beginning** along the westerly line of said unrecorded lease to Pacific Ethanol North 47°00'55" East 455.61 feet to the northwest corner of said unrecorded lease to Pacific Ethanol;

Thence along the northerly line of said unrecorded lease to Pacific Ethanol North 87°10'52" East 108.53 feet;

Thence leaving said north line South 47°00'55" West 593.91 feet to a point on the southwesterly line of said unrecorded lease to Pacific Ethanol;

Thence along said southwesterly line along the arc of a non-tangent curve to the right having a radius of 491.70 feet (described as 491.67 feet per unrecorded lease to Pacific Ethanol provided by the Port of Stockton and assumed to be described using grid distances), concave to the northeast, from a radial bearing North 80°09'10" East, through a central angle of 10°24'52" for 89.38 feet (Chord: North 04°38' 24" West, 89.25 feet) to the **Point of Beginning** containing 0.85 acres more or less.

The Basis of Bearings for this legal description is that certain map filed for record August 30, 1994 in Book 33 of Surveys at Page 20, records of San Joaquin County, California. All distances described herein are ground distances. To obtain grid distances multiply ground distances by 0.999939442 which is the combined factor for GPS Occupied Point No. 306 based upon the elevation of said Point No. 306 being 8.17 feet as published by the City of Stockton in Benchmark Book Appendix B.

SURVEYOR'S STATEMENT

I hereby state that I am a Licensed Land Surveyor of the State of California and that this description was prepared under my supervision.

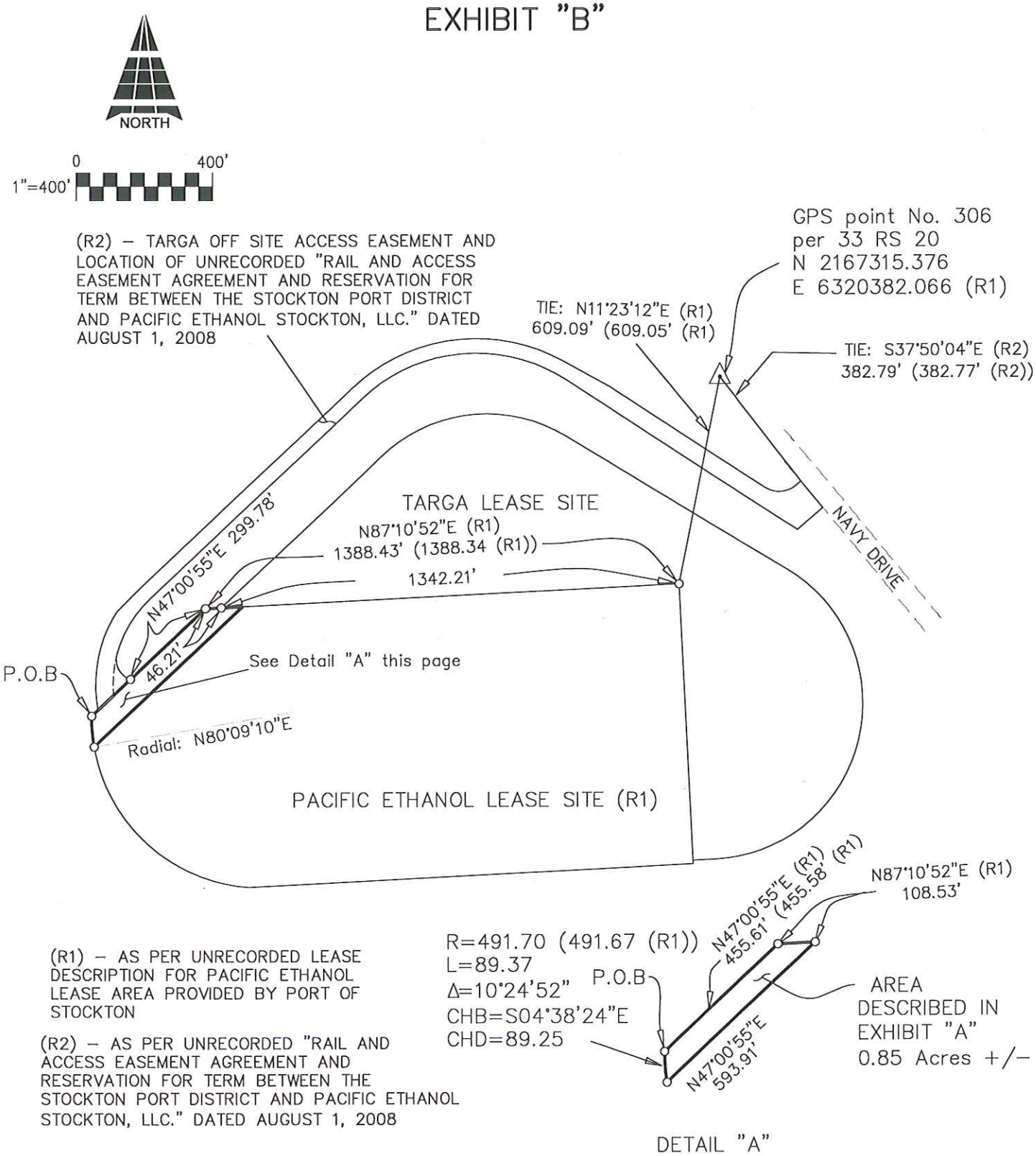
Michael R. Dequine

Dated: Nov. 21, 2011

Michael R. Dequine, LS 5614
License Expires 9/30/2012

LICENSED LAND SURVEYOR
MICHAEL RAYMOND
DEQUINE
Exp. 9/30/2012
05614
STATE OF CALIFORNIA

EXHIBIT "B"



(R1) – AS PER UNRECORDED LEASE DESCRIPTION FOR PACIFIC ETHANOL LEASE AREA PROVIDED BY PORT OF STOCKTON

(R2) – AS PER UNRECORDED "RAIL AND ACCESS EASEMENT AGREEMENT AND RESERVATION FOR TERM BETWEEN THE STOCKTON PORT DISTRICT AND PACIFIC ETHANOL STOCKTON, LLC." DATED AUGUST 1, 2008

t:\active\11-1293 trc solutions port of stockton\survey\drawing\wip\exhibit b targa access easement over pacific ethanol site.dwg

Michael Dequine and Associates, Inc.
2295 Gateway Oaks Drive, Suite 140
Sacramento, Ca 95833
Phone: (916) 923-5820
Fax: (916) 923-1626

TARGA
ACCESS EASEMENT OVER PACIFIC ETHANOL SITE
PORT OF STOCKTON
IN THE CITY OF STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA

Checked by: KS	Drawn By: MRD	Job# 11–1293
Scale: 1"=400'	Date: OCT 31, 2011	Sheet 1 of 1

Parcel name: Access over P.E.

```
   North: 10000.00            East : 10000.00
Line  Course: N 47-00-55 E  Length: 455.61
        North: 10310.64             East : 10333.29
Line  Course: N 87-10-52 E  Length: 108.53
        North: 10315.97             East : 10441.69
Line  Course: S 47-00-55 W  Length: 593.91
        North: 9911.04              East : 10007.23
Curve  Length: 89.37               Radius: 491.70
        Delta: 10-24-52           Tangent: 44.81
        Chord: 89.25               Course: N 04-38-24 W
    Course In: N 80-09-10 E     Course Out: N 89-25-58 W
    RP  North: 9995.14              East : 10491.68
    End North: 10000.00             East : 10000.01
Line  Course: S 67-35-53 W  Length: 0.01
        North: 10000.00             East : 10000.00

   Perimeter: 1247.43   Area: 36,854.747 sq. ft. 0.84607 acres

Mapcheck Closure - (Uses listed courses, radii, and deltas)
Error Closure: 0.00                Course: S 67-35-54 W
  Error North: -0.001               East : -0.002
Precision  1: 1,247,430,000.00
```

EXHIBIT A

Legal Description

TARGA – Off-Site Access Easement Area

All that real property situate in the City of Stockton, County of San Joaquin, State of California, described as follows:

All that portion of Sections 8 and 17, Township 1 North, Range 6 East, Mount Diablo Meridian, more particularly described as follows:

Commencing at GPS Occupied Point No. 306 as shown on that certain map filed for record on August 30, 1994 in Book 33 of Surveys at Page 20, records of San Joaquin County, California, said GPS Occupied Point No. 306 having the coordinates of Northing 2167315.376 and Easting 6320382.066 as shown on said map, thence from said Point of Commencement South 37°50′04″ East 382.79 feet (described as South 37°50′04″ East 382.77′ per unrecorded lease to Pacific Ethanol provided by the Port of Stockton and assumed to be described using grid distances) to the West Right of Way line of Navy Drive and the true **Point of Beginning** of the herein described access easement area;

Thence from said Point of Beginning, leaving said West Right of Way line South 49°50′10″ West 18.52 feet;

Thence along a tangent curve to the right, having a radius of 75.00 feet, a central angle of 72°47′46″, and an arc length of 95.29 feet;

Thence North 57°22′04″ West for 539.63 feet;

Thence North 61°29′20″ West for 158.41 feet;

Thence along a tangent curve to the left, having a radius of 534.47 feet, a central angle of 71°29′44″, and an arc length of 666.93 feet;

Thence South 47°00′55″ West 843.33 feet;

Thence along a tangent curve to the left, having a radius of 381.02 feet, a central angle of 03°11′34″, and an arc length of 21.23 feet;

Thence South 45°25′09″ West 55.02 feet;

Thence along a tangent curve to the left, having a radius of 150.01 feet, a central angle of 15°52′13″, a chord bearing and distance of South 37°29′02″ West 41.42 feet, and an arc length of 41.55 feet;

Thence along a tangent curve to the left, having a radius of 390.02 feet, a central angle of 40°18′09″, a chord bearing and distance of South 09°23′52″ West 268.73 feet, and an arc length of 274.35 feet;

Thence North 47°00′55″ East 130.38 feet;

Thence along a non-tangent curve to the right, having a radius of 60.00 feet, a central angle of 87°12′32″, a chord bearing and distance of North 28°23′53″ East 82.76 feet, and an arc length of 91.32 feet;

Thence along a tangent curve to the right, having a radius of 339.02 feet, a central angle of 31°48′31″, a chord bearing and distance of North 31°06′39″ East 185.80 feet, and an arc length of 188.21 feet;

Thence North 47°00′55″ East 843.33 feet;

Thence along a tangent curve to the right, having a radius of 492.47 feet, a central angle of 75°37′01″, and an arc length of 649.94 feet;

Thence South 57°22′04″ East 803.10 feet;

Thence North 49°50′10″ East 97.32 feet to the said west right of way line;

Thence along said right of way line North 40°10′45″ West 100.01 feet to the point of beginning and containing 3.02 acres more or less.

The Basis of Bearings for this legal description is that certain map filed for record August 30, 1994 in Book 33 of Surveys at Page 20, records of San Joaquin County, California. All distances described herein are ground distances. To obtain grid distances multiply ground distances by 0.999939442 which is the combined factor for GPS Occupied Point No. 306 based upon the elevation of said Point No. 306 being 8.17 feet as published by the City of Stockton in Benchmark Book Appendix B.

SURVEYOR'S STATEMENT

I hereby state that I am a Licensed Land Surveyor of the State of California and that this description was prepared under my supervision.

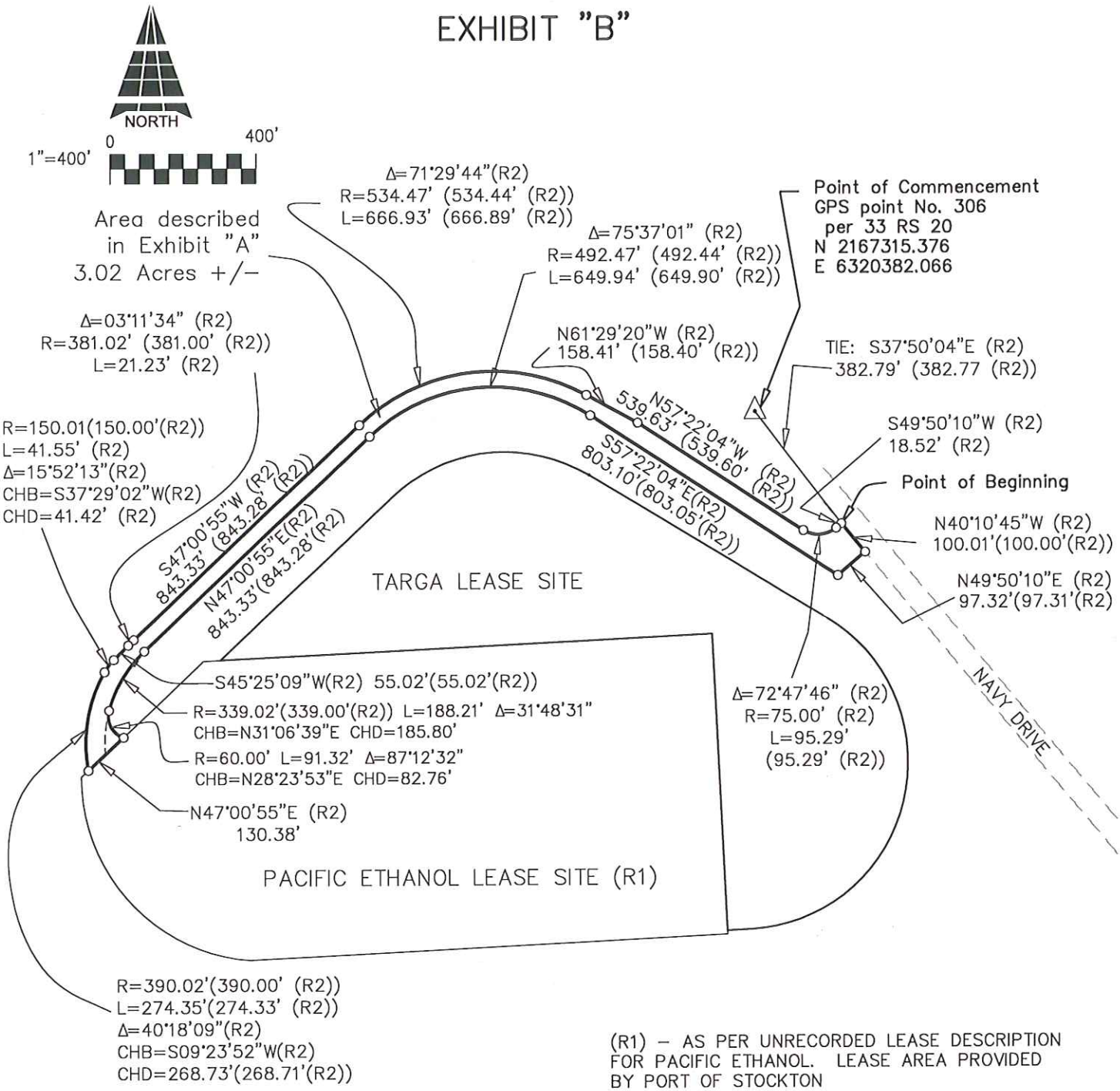
Michael R. Dequine

Dated: Nov. 21, 2011

Michael R. Dequine, LS 5614
License Expires 9/30/2012

LICENSED LAND SURVEYOR
MICHAEL RAYMOND DEQUINE
Exp. 9/30/2012
05614
STATE OF CALIFORNIA

EXHIBIT "B"



(R1) – AS PER UNRECORDED LEASE DESCRIPTION FOR PACIFIC ETHANOL. LEASE AREA PROVIDED BY PORT OF STOCKTON

(R2) – AS PER UNRECORDED "RAIL AND ACCESS EASEMENT AGREEMENT AND RESERVATION FOR TERM BETWEEN THE STOCKTON PORT DISTRICT AND PACIFIC ETHANOL STOCKTON, LLC." DATED AUGUST 1, 2008

t:\active\11-1293 trc solutions port of stockton\survey\drawing\wip\exhibit b lease area access description.dwg

Michael Dequine and Associates, Inc.
2295 Gateway Oaks Drive, Suite 140
Sacramento, Ca 95833
Phone: (916) 923-5820
Fax: (916) 923-1626

TARGA
OFF SITE ACCESS EASEMENT TO LEASE AREA
PORT OF STOCKTON
IN THE CITY OF STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA

Checked by: KS	Drawn By: MRD	Job# 11-1293
Scale: 1"=400'	Date: OCT 31, 2011	Sheet 1 of 1

Parcel name: Targa off site access

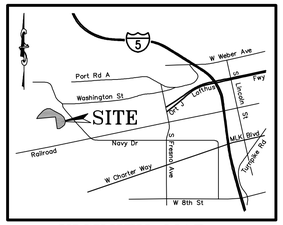
```
   North: 2167562.06          East : 6325788.05
Line  Course: S 49-50-10 W  Length: 18.52
        North: 2167550.12            East : 6325773.89
Curve  Length: 95.29                Radius: 75.00
        Delta: 72-47-46            Tangent: 55.29
        Chord: 89.01                Course: S 86-14-03 W
    Course In: N 40-09-50 W     Course Out: S 32-37-56 W
    RP  North: 2167607.43            East : 6325725.52
    End North: 2167544.27            East : 6325685.08
Line  Course: N 57-22-04 W  Length: 539.63
        North: 2167835.27            East : 6325230.63
Line  Course: N 61-29-20 W  Length: 158.41
        North: 2167910.88            East : 6325091.43
Curve  Length: 666.93               Radius: 534.47
        Delta: 71-29-44            Tangent: 384.73
        Chord: 624.49               Course: S 82-45-48 W
    Course In: S 28-30-40 W     Course Out: N 42-59-04 W
    RP  North: 2167441.23            East : 6324836.31
    End North: 2167832.21            East : 6324471.91
Line  Course: S 47-00-55 W  Length: 843.33
        North: 2167257.23            East : 6323854.98
Curve  Length: 21.23                Radius: 381.02
        Delta: 3-11-34             Tangent: 10.62
        Chord: 21.23                Course: S 45-25-08 W
    Course In: S 42-59-05 E     Course Out: N 46-10-39 W
    RP  North: 2166978.50            East : 6324114.76
    End North: 2167242.33            East : 6323839.86
Line  Course: S 45-25-09 W  Length: 55.02
        North: 2167203.71            East : 6323800.67
Curve  Length: 41.55                Radius: 150.01
        Delta: 15-52-13            Tangent: 20.91
        Chord: 41.42                Course: S 37-29-02 W
    Course In: S 44-34-51 E     Course Out: N 60-27-04 W
    RP  North: 2167096.86            East : 6323905.97
    End North: 2167170.84            East : 6323775.47
Curve  Length: 274.35               Radius: 390.02
        Delta: 40-18-10            Tangent: 143.12
        Chord: 268.73               Course: S 09-23-49 W
    Course In: S 60-27-06 E     Course Out: S 79-14-44 W
    RP  North: 2166978.50            East : 6324114.76
    End North: 2166905.72            East : 6323731.59
Line  Course: N 47-00-55 E  Length: 130.38
        North: 2166994.62            East : 6323826.97
Curve  Length: 91.32                Radius: 60.00
        Delta: 87-12-32            Tangent: 57.15
        Chord: 82.76                Course: N 28-23-53 W
    Course In: N 17-59-51 E     Course Out: N 74-47-37 W
    RP  North: 2167051.68            East : 6323845.51
    End North: 2167067.42            East : 6323787.61
Curve  Length: 188.21               Radius: 339.02
        Delta: 31-48-31            Tangent: 96.60
        Chord: 185.80               Course: N 31-06-38 E
    Course In: S 74-47-37 E     Course Out: N 42-59-06 W
    RP  North: 2166978.49            East : 6324114.76
    End North: 2167226.50            East : 6323883.61
Line  Course: N 47-00-55 E  Length: 843.33
        North: 2167801.48            East : 6324500.54
Curve  Length: 649.94               Radius: 492.47
        Delta: 75-37-01            Tangent: 382.12
        Chord: 603.79               Course: N 84-49-25 E
    Course In: S 42-59-05 E     Course Out: N 32-37-56 E
    RP  North: 2167441.22            East : 6324836.31
```

```
    End North: 2167855.96            East : 6325101.87
Line  Course: S 57-22-04 E  Length: 803.10
        North: 2167422.89            East : 6325778.20
Line  Course: N 49-50-10 E  Length: 97.32
        North: 2167485.66            East : 6325852.57
Line  Course: N 40-10-45 W  Length: 100.01
        North: 2167562.07            East : 6325788.05
Line  Course: S 07-50-44 W  Length: 0.00
        North: 2167562.07            East : 6325788.05

   Perimeter: 5617.89   Area: 131,479.708 sq. ft. 3.01836 acres

Mapcheck Closure - (Uses listed courses, radii, and deltas)
Error Closure: 0.01                 Course: N 13-24-15 E
  Error North: 0.005                 East : 0.001
Precision  1: 561,787.00
```

ALTA SURVEY SHOWING
TARGA LEASE SITE

A PORTION OF PARCEL "4-S" AS DESCRIBED IN BOOK 251 AT PAGE 138 OFFICIAL RECORDS
OF SAN JOAQUIN COUNTY, CALIFORNIA AND SHOWN PER BOOK 37 OF SURVEYS AT PAGE 010
AT THE PORT OF STOCKTON, CITY OF STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA

AUGUST, 2011



VICINITY MAP

SURVEYOR STATEMENT

TO: STOCKTON PORT DISTRICT, A PORT DISTRICT DULY ORGANIZED AND EXISTING UNDER AND BY VIRTUE OF THE LAWS OF THE STATE OF CALIFORNIA AND PLACER TITLE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN 2011, AND INCLUDES ITEMS 2, 3, 4, 5, 7(A), 8, 11(A), 14, 15, AND 16 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON AUGUST 1, 2011

_____ _____

MICHAEL R. DEQUINE, L.S. 5614 DATE
LICENSE EXPIRES: SEPTEMBER 20, 2012

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS MAP IS THE RECORD OF SURVEY OF THE CITY OF STOCKTO HORIZONTAL CONTROL SYSTEM PHASES XII & XIII FILED IN BOOK 33 OF SURVEYS, PAGE 20.

BENCHMARK

THE ELEVATIONS FOR THIS SURVEY ARE BASED UPON CITY OF STOCKTON BENCHMARK NO. 306, A BRASS DISK MARKING CITY OF STOCKTON MONUMENT STAMPED "10S-2" IN MONUMENT WELL ON WEST SIDE OF TRAFFIC ISLAND AT NAVY DRIVE AND WASHINGTON STREET. THE ELEVATION OF THIS BENCHMARK BEING 8.17' (NAVD88).

FLOOD ZONE

FLOOD ZONE "X"

DESCRIBED AS: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

SOURCE: FLOOD INSURANCE RATE MAP NO. 06077C0455F, EFFECTIVE DATE OCTOBER 16, 2009

PRELIMINARY TITLE REPORT

THIS SURVEY IS BASED ON INFORMATION CONTAINED IN A PRELIMINARY TITLE REPORT ISSUED BY PLACER TITLE COMPANY, DATED AUGUST 15, 2011, ORDER NO. 1001-23275. ITEMS LISTED BELOW ARE SHOWN AS EXCEPTIONS IN SAID TITLE REPORT AND INCLUDE WHETHER OR NOT THEY ARE PLOTTABLE. FOR PURPOSES OF THIS SURVEY THE TERM "SUBJECT PROPERTY" REFERES TO THAT PORTION OF THE 99 ACRE± PARCEL NO. 4-S AS SAID 99 ACRE± PARCEL NO. 4-S IS SHOWN PER BOOK 37 OF SURVEYS, PAGE 010, SAN JOAQUIN COUNTY RECORDS AND DELINEATED HEREON AS "SUBJECT PROPERTY" CONTAINING 16.917± ACRES (ALL DOCUMENTS REFERENCED HEREIN ARE SAN JOAQUIN COUNTY, CALIFORNIA RECORDS):

ITEM 1 TAXES, SPECIAL AND GENERAL, ASSESSMENT DISTRICTS AND SERVICE AREAS FOR THE FISCAL YEAR 2011-2012, A LIEN, NOT YET DUE OR PAYABLE. THIS ITEM CANNOT BE PLOTTED.

ITEM 2 THE LIEN OF SUPPLEMENTAL TAXES, IF ANY, ASSESSED PURSUANT TO THE PROVISIONS OF CHAPTER 3.5, (COMMENCING WITH SECTION 75) OF THE REVENUE AND TAXATION CODE OF THE STATE OF CALIFORNIA. THIS ITEM CANNOT BE PLOTTED.

ITEM 3 TAXES FOR THE FISCAL YEAR 2010-2011 ARE NOT ASSESSED. OWNER IS EXEMPT. THIS ITEM CANNOT BE PLOTTED.

ITEM 4 ANY ADVERSE CLAIM BASED UPON THE ASSERTION THAT: (A) SOME PORTION OF SAID LAND HAS BEEN CREATED BY ARTIFICIAL MEANS, OR HAS ACRETED TO SUCH PORTION SO CREATED, (B) SOME PORTION OF SAID LAND HAS BEEN BROUGHT WITHIN THE BOUNDARIES THEREOF BY AN AVULSIVE MOVEMENT OF SAN JOAQUIN RIVER, OR HAS BEEN FORMED BY ACCRETION TO ANY SUCH PORTION. THIS ITEM CANNOT BE PLOTTED

ITEM 5 RIGHTS AND EASEMENTS FOR COMMERCE, NAVIGATION AND FISHERY OVER THAT PORTION OF SAID LAND LYING BENEATH THE WATERS OF THE SAN JOAQUIN RIVER. THIS ITEM CANNOT BE PLOTTED.

ITEM 6 ANY RIGHTS IN FAVOR OF THE PUBLIC WHICH MAY EXIST ON SAID LAND IF SAID LAND OR PORTIONS THEREOF ARE OR WERE AT ANY TIME USED BY THE PUBLIC. THIS ITEM CANNOT BE PLOTTED.

ITEM 7 AN EASEMENT OVER SAID LAND TO LAY, MAINTAIN AND REMOVE DREDGE DISCHARGE AND INCIDENTAL PURPOSES AS GRANTED TO FRANK S. BOGGS IN DEED REORDED MAY 3, 1929 IN BOOK 251, PAGE 138, OFFICIAL RECORDS. THE EXACT LOCATION OF THIS EASEMENT CANNOT BE DETERMINED FROM THE REFERENCED DOCUMENT AND CANNOT BE PLOTTED.

ITEM 8 AN EASEMENT OVER SAID LAND TO CONSTRUCT AND MAINTAIN LEVEES AND INCIDENTAL PURPOSES AS GRANTED TO THE UNITED STATES OF AMERICA IN DEED RECORDED JUNE 18, 1930, IN BOOK 290, PAGE 162, OFFICIAL RECORDS. THE EXACT LOCATION OF THIS EASEMENT CANNOT BE DETERMINED FROM THE REFERENCE DOCUMENT PROVIDED AND CANNOT BE PLOTTED.

ITEM 9 AN EASEMENT OVER SAID LANDS FOR HIGHWAY AND INCIDENTAL PURPOSES AS GRANTED TO SAN JOAQUIN COUNTY IN DEED RECORDED AUGUST 28, 1939, IN BOOK 642, PAGE 472, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 10 AN EASEMENT OVER SAID LAND FOR SEWER AND INCIDENTAL PURPOSES AS GRANTED TO THE CITY OF STOCKTON IN DEED RECORDED FEBRUARY 9, 2003 IN BOOK 3735, PAGE 385, OFFICIAL RECORDS. THIS ITEM DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 11 AN EASEMENT OVER SAID LAND FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, AS GRANTED TO PACIFIC GAS AND ELECTRIC COMPANY IN DEED RECORDED NOVEMBER 12, 1973 IN BOOK 3817, PAGE 330, OFFICIAL RECORDS. THE EXACT LOCATION OF THIS EASEMENT CANNOT BE DETERMINED FROM THE REFERENCE DOCUMENT AND CANNOT BE PLOTTED.

ITEM 12 AN EASEMENT OVER SAID LAND FOR WATER LINE AND INCIDENTAL PURPOSES AS GRANTED TO THE UNITED STATES OF AMERICA IN DEED RECORDED MAY 27, 1975 IN BOOK 3986, PAGE 367, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 13 AN EASEMENT OVER SAID LAND FOR SANITARY SEWER AND INCIDENTAL PURPOSES AS GRANTED TO THE CITY OF STOCKTON IN DEED RECORDED MARCH 23, 1993 AS INSTRUMENT NO. 93035476, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 14 AN EASEMENT OVER SAID LAND FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES AS GRANTED TO PACIFIC BELL IN DEED RECORDED APRIL 24, 2000 AS INSTRUMENT NO. 44413, OFFICIAL RECORDS. THE EXACT LOCATION OF THIS EASEMENT CANNOT BE DETERMINED FROM THE REFERENCE DOCUMENT AND CANNOT BE PLOTTED.

ITEM 15 UNRECORDED LEASE, BY AND BETWEEN STOCKTON PORT DISTRICT AND DIASHOWA AMERICA CO., LTD A WASHINGTON CORPORATION, AS DISCLOSED BY CONSENT AND SUBORDINATION AGREEMENT, DATED MAY 12, 1993, RECORDED JUNE 25, 1993 AS INSTRUMENT NO. 93073987, OFFICIAL RECORDS, AND ON THE TERMS AND CONDITIONS CONTAINED IN SAID LEASE. THIS ITEM CANNOT BE PLOTTED.

ITEM 16 STATEMENT OF REDEVELOPMENT PLAN BY THE CITY OF STOCKTON RECORDED JULY 12, 2001 AS INSTRUMENT NO. 2001-110158. THIS ITEM CANNOT BE PLOTTED.

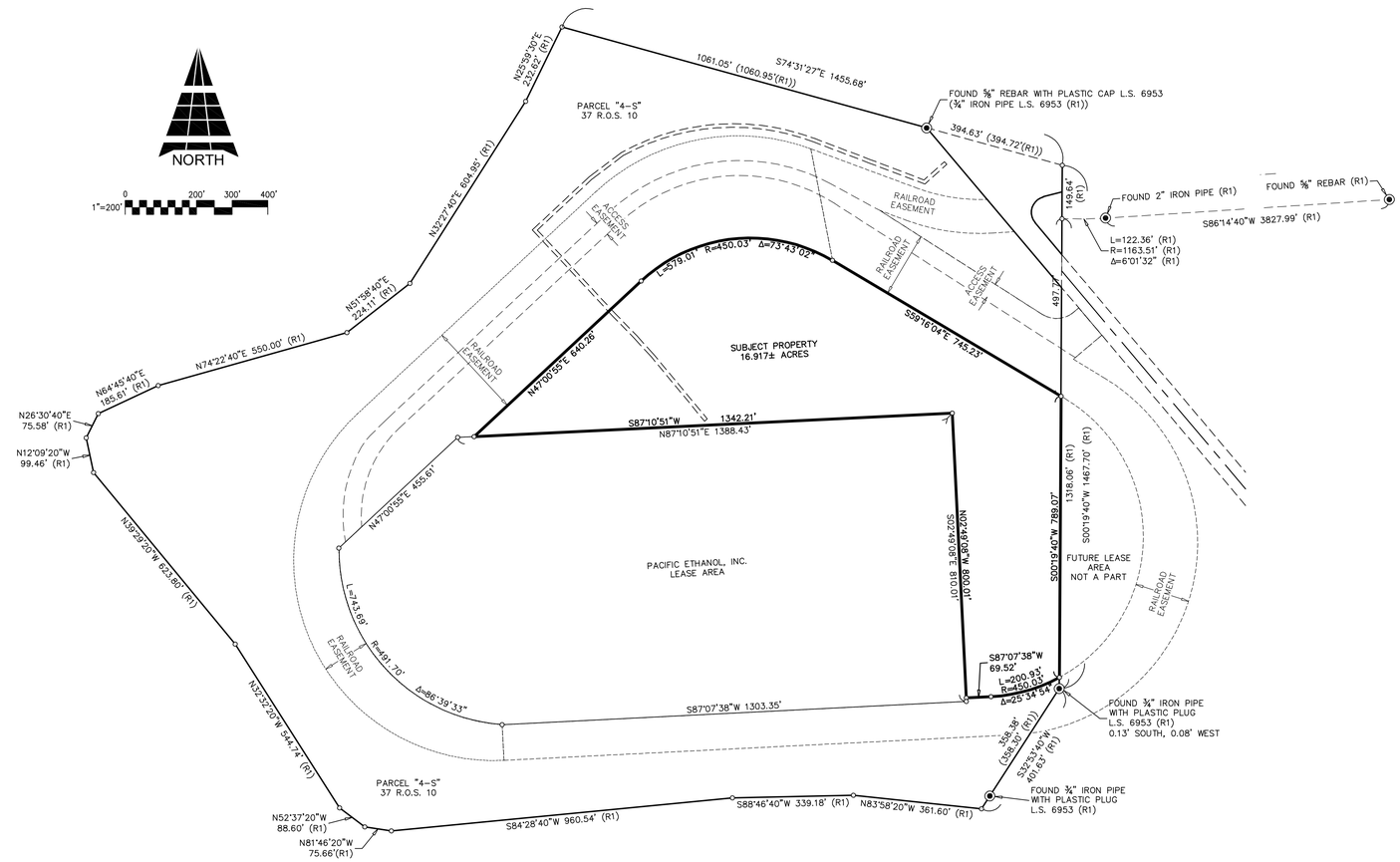
ITEM 17 AN EASEMENT OVER SAID LAND FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES AS GRANTED TO PACIFIC GAS AND ELECTRIC COMPANY IN DEED RECORDED AUGUST 19, 2008 AS INSTRUMENT NO. 2008-136228, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 18 AN EASEMENT OVER SAID LAND FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES AS GRANTED TO PACIFIC GAS AND ELECTRIC COMPANY IN DEED RECORDED AUGUST 19, 2008 AS INSTRUMENT NO. 2008-136229, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 19 AN EASEMENT OVER SAID LAND FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES AS GRANTED TO PACIFIC GAS AND ELECTRIC COMPANY IN DEED RECORDED AUGUST 19, 2008 AS INSTRUMENT NO. 2008-136230, OFFICIAL RECORDS. THIS EASEMENT IS PLOTTABLE AND SHOWN HEREON.

ITEM 20 THE EFFECT OF A RECORD OF SURVEY FILED NOVEMBER 7, 2008 IN BOOK 37 OF SURVEYS, PAGE 010. ANY DISCREPANCIES BETWEEN THIS SURVEY AND THE 99 ACRE± PARCEL SHOWN PER BOOK 37 OF SURVEYS, PAGE 010 AFFECT THE NORTHERLY LINE OF THE 99 ACRE± PARCEL AND DO NOT AFFECT THE SUBJECT PROPERTY.

ITEM 21 AN EASEMENT OVER SAID LAND FOR SANITARY SEWER FORCE MAIN AND INCIDENTAL PURPOSES AS GRANTED TO THE CITY OF STOCKTON IN DEED RECORDED JANUARY 26, 2011 AS INSTRUMENT NO. 2011-010907, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.



Michael Dequine and Associates, Inc.
2295 Gateway Oaks Drive, Suite 140
Sacramento, Ca 95833
Phone: (916) 923-5820
Fax: (916) 923-1628

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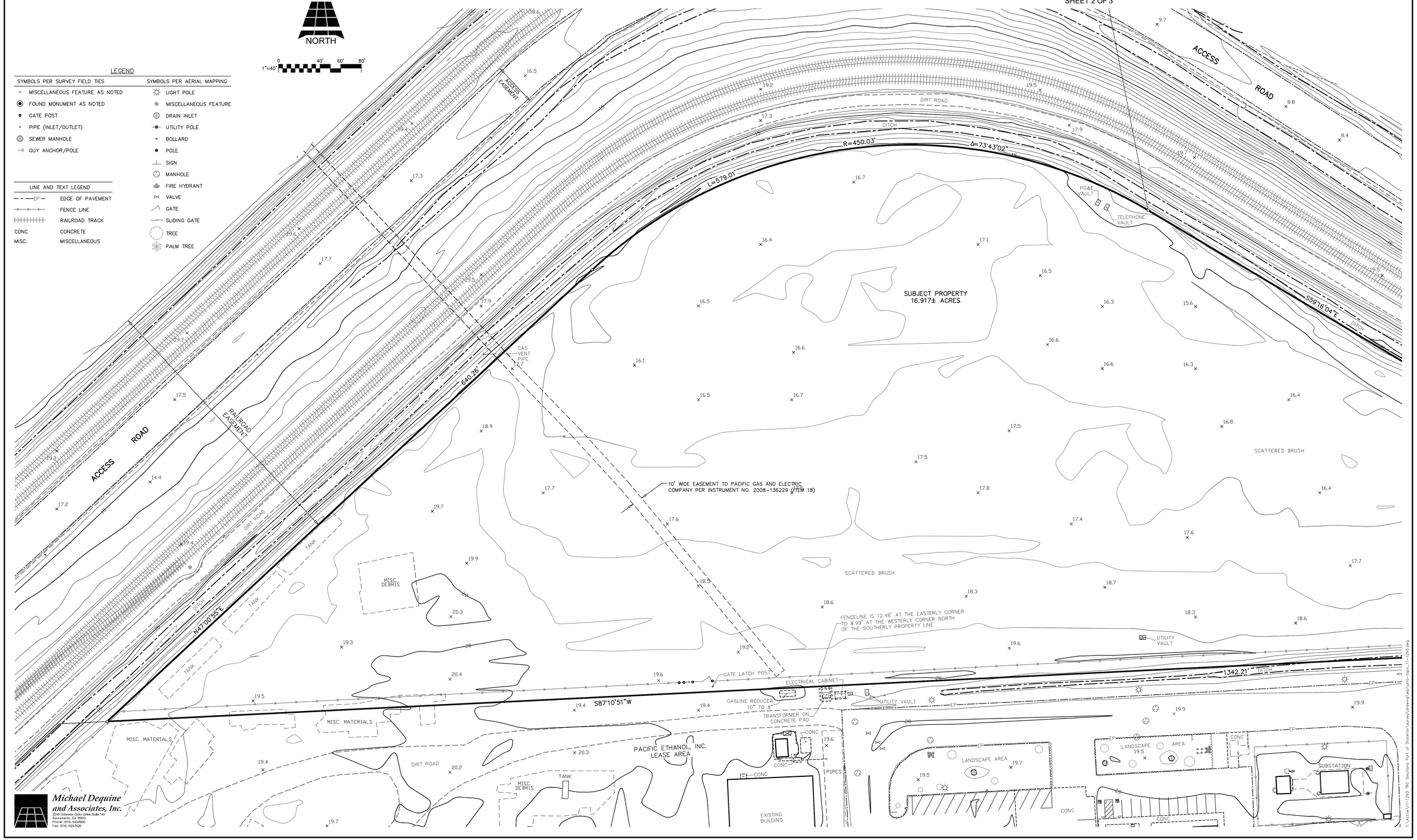
ALTA SURVEY SHOWING

TARGA LEASE SITE

A PORTION OF PARCEL "4-S" AS DESCRIBED IN BOOK 251 AT PAGE 138 OFFICIAL RECORDS
OF SAN JOAQUIN COUNTY, CALIFORNIA AND SHOWN PER BOOK 37 OF SURVEYS AT PAGE 010
AT THE PORT OF STOCKTON, CITY OF STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA

AUGUST, 2011

SHEET 2 OF 3



Michael Dequine and Associates, Inc.
2295 Gateway Oaks Drive, Suite 140
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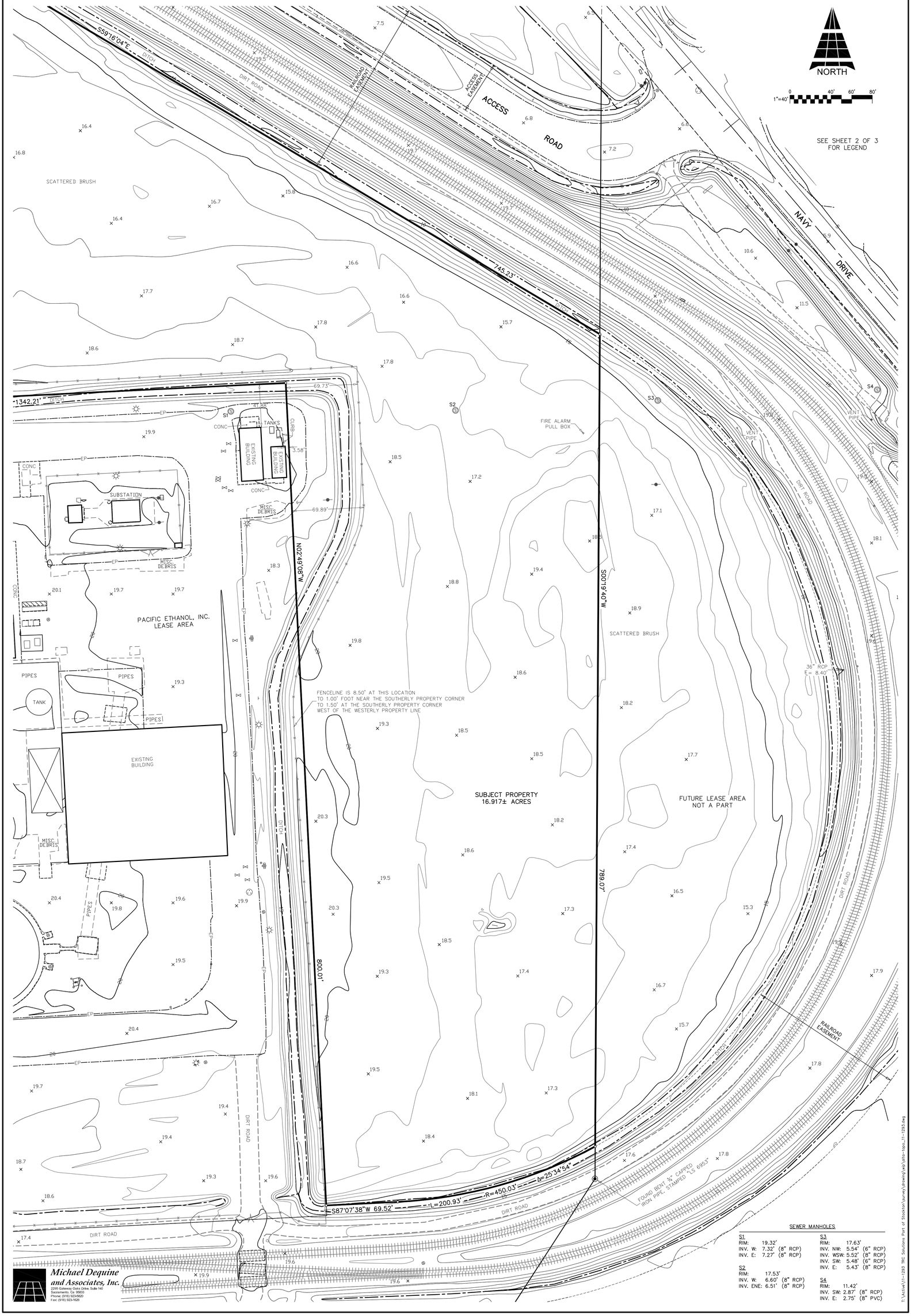
ALTA SURVEY SHOWING

TARGA LEASE SITE

A PORTION OF PARCEL "4-S" AS DESCRIBED IN BOOK 251 AT PAGE 138 OFFICIAL RECORDS
OF SAN JOAQUIN COUNTY, CALIFORNIA AND SHOWN PER BOOK 37 OF SURVEYS AT PAGE 010
AT THE PORT OF STOCKTON, CITY OF STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA

AUGUST, 2011

SHEET 3 OF 3



SEWER MANHOLES

S1	S3
RIM: 19.32'	RIM: 17.63'
INV. W: 7.32' (8" RCP)	INV. NW: 5.54' (6" RCP)
INV. E: 7.27' (8" RCP)	INV. WSW: 5.52' (8" RCP)
	INV. SW: 5.48' (6" RCP)
	INV. E: 5.43' (8" RCP)

S2	S4
RIM: 17.53'	RIM: 11.42'
INV. W: 6.60' (8" RCP)	INV. SW: 2.87' (8" RCP)
INV. ENE: 6.51' (8" RCP)	INV. E: 2.75' (8" PVC)

Michael Dequine and Associates, Inc.
2295 Gateway Oaks Drive, Suite 140
Sacramento, Ca 95833
Phone: (916) 923-5620
Fax: (916) 923-1926

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Appendix E – Cultural Resources Documentation

TRC

123 Technology Drive
Irvine, California 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

August 30, 2011

Ms. Debbie Treadway
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

Dear Ms. Treadway,

TRC Solutions, Inc. has been retained by Targa Terminals, LLC (Targa) to prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed project is located in San Joaquin County on the United States Geologic Survey Stockton West, CA quadrangle (see enclosed map).

Please conduct a search of the Sacred Lands Inventory to determine if the proposed project location is near or within any identified Sacred Lands. Additionally, please forward a list of Native American tribes associated with this area. Thank you for your time and help.

Respectfully,

Susan Underbrink

Susan Underbrink, M.A., RPA
Project Manager/Senior Archaeologist

Enclosures: USGS Stockton West map

STATE OF CALIFORNIA Edmund G. Brown Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390
Web Site www.nahc.ca.gov

September 26, 2011

Susan Underbrink
TRC Solutions
123 Technology Drive
Irvine, CA 92618
Sent by Fax 949-727-7399
Number of Pages: 2

Re: Proposed Construction of a Terminalling and Storage Facility, San Joaquin County.

Dear Ms. Underbrink:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4038.

Sincerely,

Debbie Pilas-Treadway
Environmental Specialist III

Native American Contacts
San Joaquin County
September 26, 2011

Katherine Erolinda Perez
PO Box 717
Linden , CA 95236
canutes@verizon.net
(209) 887-3415

Ohlone/Costanoan
Northern Valley Yokuts
Bay Miwok

Ione Band of Miwok Indians
Yvonne Miller, Chairperson
PO Box 699
Plymouth , CA 95669
(209) 274-6753
(209) 274-6636 Fax

Miwok

Randy Yonemura
4305 - 39th Avenue
Sacramento , CA 95824
honortraditions@mail.com
(916) 421-1600

Miwok

Ione Band of Miwok Indians Cultural Committee
Ms Billie Blue, Chairperson
604 Pringle Ave, #42
Galt , CA 95632
bebluesky@softcom.net
(209) 745-7112

Miwok

Briana Creekmore
PO Box 84
Wilseyville , CA 95257
209-298-7158

Miwok

Wilton Rancheria
Mary Daniels-Tarango, Chairperson
7916 Farrell Way
Sacramento , CA 95823
wiltonrancheria@frontier.com
(916) 427-2909 Home

Miwok

Buena Vista Rancheria
Rhonda Morningstar Pope, Chairperson
PO Box 162283
Sacramento , CA 95816
rhonda@buenavistatribe.com
916 491-0011
916 491-0012 - fax

Me-Wuk / Miwok

Wilton Rancheria
Leland Daniels, Cultural Resources Rep
7531 Maple Leaf Lane
Sacramento , CA 95828
(916) 689-7330

Miwok

California Valley Miwok Tribe
Silvia Burley, Chairperson
10601 N Escondido PL.
Stockton , CA 95212
s.burley@californiavalleymiwoktribe-nsn.gov
209-931-4567
209-931-4333

Miwok

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code

This list is only applicable for contacting Native Americans with regard to cultural resources for the proposed construction of a terminalling and storage facility in San Joaquin County

123 Technology Drive
Irvine, California 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

October 4, 2011

Wilton Rancheria
Mr. Leland Daniels
7531 Maple Leaf Lane
Sacramento, CA 95828

Dear Mr. Daniels,

TRC has been retained by the Targa Terminals, LLC (Targa) to prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed project is located in San Joaquin County on the United States Geologic Survey Stockton West, CA quadrangle (see enclosed map).

TRC conducted a literature search/review, in addition to a Sacred Lands Search with the Native American Heritage Commission. Pursuant to Section 101 of the National Historic Preservation Act, TRC is notifying Native American parties about the project and inquiring about any cultural sensitivity concerns you may have.

I would appreciate any input or concerns you may have about the project in writing so they may be addressed in a timely manner. If you have any questions or concerns regarding this project, please feel free to contact me at any time. Thank you for your time and help.

Respectfully,

Susan Underbrink

Susan Underbrink M.A., RPA
Senior Archaeologist
sunderbrink@trcsolutions.com
(949) 727-7385 direct line

Enclosure: USGS Stockton West Quadrangle

123 Technology Drive
Irvine, California 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

October 4, 2011

Ione Band of Miwok Indians
Ms. Yvonne Miller
P.O. Box 669
Plymouth, CA 95669

Dear Ms. Miller,

TRC has been retained by the Targa Terminals, LLC (Targa) to prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed project is located in San Joaquin County on the United States Geologic Survey Stockton West, CA quadrangle (see enclosed map).

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Respectfully,

Susan Underbrink

Susan Underbrink M.A., RPA
Senior Archaeologist
sunderbrink@trcsolutions.com
(949) 727-7385 direct line

Enclosure: USGS Stockton West Quadrangle

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Irvine, California 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

October 4, 2011

Ms. Briana Creekmore
P.O. Box 84
Wilseyville, CA 95257

Dear Ms. Creekmore,

TRC has been retained by the Targa Terminals, LLC (Targa) to prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed project is located in San Joaquin County on the United States Geologic Survey Stockton West, CA quadrangle (see enclosed map).

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Susan Underbrink

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Senior Archaeologist
sunderbrink@trcsolutions.com
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Enclosure: USGS Stockton West Quadrangle

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www.TRCsolutions.com

October 5, 2011

California Valley Miwok Tribe
Ms. Silvia Burley, Chairperson
10601 N. Escondido Place
Stockton, CA 95212
Sent via email

Dear Ms. Burley,

TRC has been retained by the Targa Terminals, LLC (Targa) to prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed project is located in San Joaquin County on the United States Geologic Survey Stockton West, CA quadrangle (see enclosed map).

TRC conducted a literature search/review, in addition to a Sacred Lands Search with the Native American Heritage Commission. Pursuant to Section 106 of the National Historic Preservation Act, TRC is notifying Native American parties about the project and inquiring about any cultural sensitivity concerns you may have.

I would appreciate any input or concerns you may have about the project in writing so they may be addressed in a timely manner. If you have any questions or concerns regarding this project, please feel free to contact me at any time. Thank you for your time and help.

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Senior Archaeologist
sunderbrink@trcsolutions.com
(949) 727-7385 direct line

Enclosure: USGS Stockton West Quadrangle

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Irvine, California 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

October 4, 2011

Wilton Rancheria
Ms. Mary Daniels-Tarango, Chairperson
7916 Farnell Way
Sacramento, CA 95823
Sent via email

Dear Ms. Daniels-Tarango,

TRC has been retained by the Targa Terminals, LLC (Targa) to prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed project is located in San Joaquin County on the United States Geologic Survey Stockton West, CA quadrangle (see enclosed map).

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Senior Archaeologist
sunderbrink@trcsolutions.com
(949) 727-7385 direct line

Enclosure: USGS Stockton West Quadrangle

123 Technology Drive
Irvine, California 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

October 4, 2011

Ione Band of Miwok Indians
Ms. Billie Blue
604 Pringle Ave, #42
Galt, CA 95632
Sent via email

Dear Ms. Blue,

TRC has been retained by the Targa Terminals, LLC (Targa) to prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed project is located in San Joaquin County on the United States Geologic Survey Stockton West, CA quadrangle (see enclosed map).

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Susan Underbrink

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sunderbrink@trcsolutions.com
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949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

October 4, 2011

Mr. Randy Yonemura
4305 39th Avenue
Sacramento, CA 95824
Sent via email

Dear Mr. Yonemura,

TRC has been retained by the Targa Terminals, LLC (Targa) to prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed project is located in San Joaquin County on the United States Geologic Survey Stockton West, CA quadrangle (see enclosed map).

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Irvine, California 92618

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949.727.7399 FAX

www.TRCsolutions.com

October 4, 2011

Buena Vista Rancheria
Ms. Rhonda Morningstar Pope
P.O. Box 162283
Sacramento, CA 95816
Sent via email

Dear Ms. Pope,

TRC has been retained by the Targa Terminals, LLC (Targa) to prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed project is located in San Joaquin County on the United States Geologic Survey Stockton West, CA quadrangle (see enclosed map).

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Respectfully,

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sunderbrink@trcsolutions.com
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Enclosure: USGS Stockton West Quadrangle

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Irvine, California 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

October 4, 2011

Ms. Katherine Erolinda Perez
P.O. Box 717
Linden, CA 95236
Sent via email

Dear Ms. Perez,

TRC has been retained by the Targa Terminals, LLC (Targa) to prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. The proposed project is located in San Joaquin County on the United States Geologic Survey Stockton West, CA quadrangle (see enclosed map).

TRC conducted a literature search/review, in addition to a Sacred Lands Search with the Native American Heritage Commission. Pursuant to Section 101 of the National Historic Preservation Act, TRC is notifying Native American parties about the project and inquiring about any cultural sensitivity concerns you may have.

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Susan Underbrink

Susan Underbrink M.A., RPA
Senior Archaeologist
sunderbrink@trcsolutions.com
(949) 727-7385 direct line

Enclosure: USGS Stockton West Quadrangle

CALIFORNIA VALLEY MIWOK TRIBE

10601 N. Escondido Pl., Stockton, CA 95212 Ph: (209) 931.4567 Fax: (209) 931.4333

http://www.californiavalleymiwoktribe-nsn.gov

October 5, 2011

Ms. Susan Underbrink, M.A., RPA
Senior Archaeologist
TRC
123 Technology Drive
Irvine, California 92618

RE: Proposed Construction of a Terminalling and Storage Facility at 3028 Navy Drive, Stockton, San Joaquin County
Project Description: Prepare an environmental document considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant, (San Joaquin County) California
NAD83 latitude 37 ° 56 ' 30.39 " N(+), NAD83 Longitude 122 ° 20 ' 20.72 "W(-)

Dear Ms. Underbrink;

This letter is in response to the your letter/email (dated 10/4/2011) regarding the proposed construction of a terminalling and storage facility at 3028 Navy Drive, Stockton, San Joaquin County. NAD83 latitude 37 ° 56 ' 30.39 " N(+), NAD83 Longitude 122 ° 20 ' 20.72 "W(-)

As of this writing, the California Valley Miwok Tribe has no issues on the particular area in regards to the proposed site project at 3028 Navy Drive, Stockton, San Joaquin County

The California Valley Miwok Tribe's only concerns are that since Miwok Indians regularly lived and traveled through this area, there is a heightened possibility that historic Miwok artifacts could be found, especially since it is known that there are several historic resources nearby and one known prehistoric site about ¾ of a mile southeast, CA-SJ0-103. The "Tribe" is requesting that it be kept apprised of Miwok artifacts if any are found at this location.

We thank you for allowing us to participate in your project by voicing any concerns we may have. Our Tribe appreciates your request for our input regarding the proposed project. Feel free to contact our office at (209) 931-4567 if we can be of further assistance.

Respectfully,

Silvia Burley, Chairperson
s.burley@californiavalleymiwoktribe-nsn.gov

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307 - FAX (209) 667-3324

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: March 15, 2010

CCIC File #: 7631 L
Project: #174156: Coast Energy Group Storage Facility
TRC P.O. # 21566

Susan Underbrink, M.A., RPA
Project Archaeologist
TRC Solutions, Inc.
123 Technology Drive
Irvine, CA 92618

Dear Ms. Underbrink,

We have conducted a records search as per your request for the above-referenced project area located on the Stockton West USGS 7.5-minute quadrangle map in San Joaquin County.

Search of our files includes review of our maps for the specific project area and a one-mile radius of the project area (as specified by the client), and review of the National Register of Historic Places, the California Register of Historical Resources, the *California Inventory of Historic Resources* (1976), the *California Historical Landmarks* (1996), and the *California Points of Historical Interest* listing (May 1992 and updates), the Directory of Properties in the Historic Property Data File and the Archaeological Determinations of Eligibility (Office of Historic Preservation current computer lists dated 02-09-2010 and 02-08-2010), the *Survey of Surveys* (1989), GLO Plats, and other pertinent historic data available at the CCIC for each specific county.

The following pages detail the results of the records search:

Please note: This Information Center does not have the following: "Resource Database Printout", and Local Inventories for San Joaquin County.

Prehistoric or historic resources within the project area:

No prehistoric or historic archaeological resources or historic properties have been reported to the Information Center.

Historic maps attached for your reference (see for details):

GLO Plat for T1N/R6E (sheet #41-011, dated 1851-1877)

Dec. 1913 Stockton USGS 7.5' (1:31680)

1952 Stockton West USGS 7.5'

Map No. Two, from *History of San Joaquin County, California with Illustrations* (Thompson and West 1879; 1968 reprint). Lithograph Plate CXXXVII also attached, in association with the reference to "St. Catherine's" on the map.

Prehistoric or historic resources within a one-mile radius of the project area:

Prehistoric resources: One site recorded; copy of record attached:

Primary #	**Trinomial**	**Resource attributes**
P-39-	**CA-SJO-**	
000237	000103	Village site

Recorded historic resources: (records attached):

Primary #	**Trinomial**	**Resource attributes**
P-39-	**CA-SJO-**	
000112	000293H	Short recorded segment of the AT & SF Railroad line.

There is a listing for this railroad on the attached page 65 of the HPDF printout, but we do not know if the HPDF evaluation is for the segment recorded here.

002824 --- Bridge #29C-23 (Navy Drive at San Joaquin River/ Vehicular Bridge at NSAS, Rough & Ready Island). Also found in the attached HPDF pages. The bridge is immediately adjacent to the project area.

004247 --- BNSF Railroad bridge at Navy Drive. Not found in the HPDF.

004516 --- Levee segment.
004517 --- Levee segment.

004576 --- NSAS Historic District, Rough & Ready Island. The District as a whole is not listed in the HPDF, although individual contributors are. The recorders consider the District eligible for the NRHP. District Record attached.

Primary # P-39-	Trinomial CA-SJO-	Resource attributes
004581	---	Segment of Daggett Road.
004582	---	Ditch along Daggett Road.

The following have also been recorded within one mile, are plotted on your map, and are listed in the HPDF; summary as follows (records not copied; HPDF pages attached; none of these are immediately adjacent to the project area):

Primary # P-39-	Trinomial CA-SJO-	Resource attributes
000490	---	Albert Lindley Home (on Rough & Ready Island); formerly eligible for the NRHP; current status: no longer eligible.
002513	---	Bridge #29-50, SR 4 at San Joaquin River (Garwoods).
002514	---	Bridge #29-51, Cordes Ranch UC
002865	---	Railroad bridge between Rough & Ready Island and Port of Stockton.
004398	---	Rough & Ready Island Water Tower and Tank

The following buildings and structures have been recorded on Rough & Ready Island, are listed in the HPDF, but are **not** plotted on your map. Please see the attached old edition of the HPDF printout that has the Primary #'s on it to determine what these features on Rough & Ready Island are:

P-39-000395 →P-39-000404, 406, 407, 409, 419, 425, 426, 427, 429, 455, 2826, 2828→2830, 2834, 2860, 2861, 2862, 2863, 2864, & 2859 (AKA P-39-000428).

Also recorded on Rough & Ready Island but not on the HPDF; records available:

P-39-004577	---	Bldg. 518, Holding & Reconsignment; not a District contributor.
P-39-004580	---	Recreation facilities, also not a contributor.

Resources known to have value to local cultural groups: None have been formally reported to the Information Center.

Previous investigations within the project area: Five reported to the Information Center; copies of reports attached:

CCIC report # SJ-	Author/Date	
838	U.S. Army Corps of Engineers (1980)	
1542	Peak & Associates (1975)	in or immediately adjacent?

CCIC report # SJ-	Author/Date
3154	Shapiro and Shapiro (1997)
6723	URS Corp. (2008)
6724	URS Corp. (2008)

Previous investigations within a one-mile radius of the project area: Thirty-three reported to the Information Center; NADB printouts attached (SHPO-ID #'s are the report #'s):

CCIC report # SJ-	Author/Date
726	Cartier (1985)
766	Napton (1981)
772	Napton (1985)
795	Napton (1989)
796	Napton (1989)
823	Peak (1980)
2964	Busby et al. (1996)
3246	National Park Service (1997)
3296	Deitz (1998)
3646	Cardiff (1999)
3812	Deitz (1999)
4743	Hart (2002)
5170	Love and Tang (2001)
5212	Losee (2003)
5498	Leach-Palm et al. (2004)
5501	Rosenthal and Meyer (2004)
5503	Leach-Palm et al. (2004)
5583	Jensen (2009)
5745	CH2MHill (2005)
5905	Jensen (2005)
5914	CH2MHill (2005)
5945	Jensen (2005)
5985	McMorris and Hope (2004)
6076	Uribe & Associates (1996)
6095	Jones & Stokes (2006)
6277	Busby (2006)
6515	Busby (2006)
6516	Busby (2007)
6648	Schmid and Offerman (2008)
6701	Goetter (2008)
6717	Goetter (2008)
6975	Tang (2009)
6995	Schmid and Offerman (2009)

Comments:

In accordance with Federal and State law, if any historical resources are found during project-related activities, work is to stop and the lead agency and a qualified professional are to be consulted to determine the importance and appropriate treatment of the find.

We understand that you will be conducting an archaeological survey of the proposed project that is the subject of this records search. We look forward to receiving one copy of your report of findings which should include two copies each of site records for all historical resources.

We thank you for contacting this office regarding historical resource preservation. Please let us know when we can be of further service. Thank you for sending the signed Access Agreement and Statement of Qualifications for Access forms in advance. Billing is attached, payable within 60 days of receipt of the invoice.

Sincerely,

R. Hards

Robin Hards, Assistant Research Technician
Central California Information Center
California Historical Resources Information System

Appendix F – Air Quality UREMBIS Technical Information

Construction Emissions

URBEMIS 2007 v9.2.4

Detailed Summary Output File

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Urbemis 2007 Version 9.2.4

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\EFitz\Desktop\Concord\Targa Stockton Terminal\nov targa\Construction Air Emissions.urb924

Project Name: Targa Stockton Terminal Construction Emissions

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	CO2
2012 TOTALS (tons/year unmitigated)	0.42	5.32	4.55	0.01	1.23	0.19	1.42	0.26	0.18	999.48
2013 TOTALS (tons/year unmitigated)	4.82	1.91	1.72	0.00	0.01	0.07	0.08	0.00	0.07	387.81
Total	5.24	7.23	6.26	0.01	1.24	0.27	1.50	0.26	0.25	1,387.29

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Urbemis 2007 Version 9.2.4

Detail Report for Annual Construction Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\EFitz\Desktop\Concord\Targa Stockton Terminal\nov targa\Construction Air Emissions.urb924

Project Name: Targa Stockton Terminal Construction Emissions

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
2012	0.42	5.32	4.55	0.01	1.23	0.19	1.42	0.26	0.18	0.44	999.48
Fine Grading 05/01/2012-	0.03	0.26	0.15	0.00	0.06	0.01	0.08	0.01	0.01	0.02	28.19
Fine Grading Dust	0.00	0.00	0.00	0.00	0.06	0.00	0.06	0.01	0.00	0.01	0.00
Fine Grading Off Road Diesel	0.03	0.26	0.14	0.00	0.00	0.01	0.01	0.00	0.01	0.01	26.97
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23
Trenching 06/01/2012-07/01/2012	0.02	0.16	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	19.08
Trenching Off Road Diesel	0.02	0.16	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	18.00
Trenching Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07
Mass Grading 07/01/2012-	0.04	0.48	0.30	0.00	1.15	0.02	1.17	0.24	0.02	0.26	57.61
Mass Grading Dust	0.00	0.00	0.00	0.00	1.15	0.00	1.15	0.24	0.00	0.24	0.00
Mass Grading Off Road Diesel	0.04	0.48	0.28	0.00	0.00	0.02	0.02	0.00	0.02	0.02	55.84
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76
Building 08/01/2012-03/01/2013	0.33	4.41	4.00	0.00	0.02	0.15	0.17	0.01	0.14	0.14	894.60
Building Off Road Diesel	0.16	2.86	1.03	0.00	0.00	0.09	0.09	0.00	0.08	0.08	368.18
Building Vendor Trips	0.12	1.45	1.09	0.00	0.01	0.06	0.07	0.00	0.05	0.06	323.38
Building Worker Trips	0.06	0.10	1.88	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.04
2013	4.82	1.91	1.72	0.00	0.01	0.07	0.08	0.00	0.07	0.07	387.81
Building 08/01/2012-03/01/2013	0.13	1.72	1.53	0.00	0.01	0.06	0.07	0.00	0.05	0.06	361.16
Building Off Road Diesel	0.07	1.16	0.42	0.00	0.00	0.04	0.04	0.00	0.03	0.03	148.62
Building Vendor Trips	0.04	0.52	0.41	0.00	0.00	0.02	0.02	0.00	0.02	0.02	130.55
Building Worker Trips	0.02	0.04	0.70	0.00	0.00	0.00	0.01	0.00	0.00	0.00	81.99
Asphalt 03/01/2013-04/01/2013	0.04	0.19	0.14	0.00	0.00	0.01	0.02	0.00	0.01	0.01	21.11
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.03	0.17	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	15.60
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.97

11/3/2011 04:34:21 PM

Paving Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.53
Coating 04/01/2013-05/01/2013	4.65	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.55
Architectural Coating	4.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.55

Phase Assumptions

Phase: Fine Grading 5/1/2012 - 6/1/2012 - Rough Grading and Site Staking
Total Acres Disturbed: 19.92
Maximum Daily Acreage Disturbed: 4.98
Fugitive Dust Level of Detail: Medium
  Onsite Scraper Use: 0 hr/day; Offsite Haulage: 0 hrs/day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 7/1/2012 - 8/1/2012 - Excavation and Sitework
Total Acres Disturbed: 19.92
Maximum Daily Acreage Disturbed: 4.98
Fugitive Dust Level of Detail: Default
  20 lbs per acre-day
On Road Truck Travel (VMT): 0
Off Road Diesel calculated using the Named Equipment EMS functions.
The Off Road Equipment was based on the Named Equipment List: C:\Documents and Settings\EFitz\Application
Off-Road Equipment:
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day; Engine Built/Rebuilt in 2005 with average useage of 1396
2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day; Engine Built/Rebuilt in 2005 with average
1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day; Engine Built/Rebuilt in 2005 with
1 Rollers (95 hp) operating at a 0.56 load factor for 8 hours per day; Engine Built/Rebuilt in 2005 with average useage of 695 hrs/year

Phase: Trenching 6/1/2012 - 7/1/2012 - Trenching for Port of Stockton Pipeline
Off-Road Equipment:
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day

11/3/2011 04:34:21 PM

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 3/1/2013 - 4/1/2013 - Paving and Striping
Acres to be Paved: 4.98
Off-Road Equipment:
4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 8/1/2012 - 3/1/2013 - Building and Installing
Off Road Diesel calculated using the Named Equipment EMS functions.
The Off Road Equipment was based on the Named Equipment List: C:\Documents and Settings\EFitz\Application
Off-Road Equipment:
3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day; Engine Built/Rebuilt in 2005 with average useage of 500 hrs/year
1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day; Engine Built/Rebuilt in 2005 with average useage of 500 hrs/year
1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day; Engine Built/Rebuilt in 2005 with average
1 Cranes (399 hp) operating at a 0.1 load factor for 8 hours per day; Engine Built/Rebuilt in 2005 with average useage of 1252 hrs/year
4 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 8 hours per day; Engine Built/Rebuilt in 2005 with
1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day; Engine Built/Rebuilt in 2005 with average useage of 500 hrs/year

Phase: Architectural Coating 4/1/2013 - 5/1/2013 - Architectural Coating, Landscaping
Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Locomotive Emissions

Calculation Spreadsheet

Locomotive Emissions Calculations Spreadsheet

	Unloading Trains: Hybrid Electric							
	EPA Switch Emission Factors (g/bhp-hr)				Annual Emissions tons/yr			
	PM10	HC	NOx	CO	PM10	HC	NOx	CO
TIER 1	0	0	0	0	0.00	0.00	0.00	0.00
TIER 2	0	0	0	0	0.00	0.00	0.00	0.00
TIER 3	0	0	0	0	0.00	0.00	0.00	0.00
	Unloading Trains: Diesel Fuel							
	EPA Switch Emission Factors (g/bhp-hr)				Annual Emissions tons/yr			
	PM10	HC	NOx	CO	PM10	HC	NOx	CO
TIER 1	0.43	1.01	9.9	1.83	1.80	4.23	41.49	7.67
TIER 2	0.19	0.51	7.3	1.83	0.80	2.14	30.59	7.67
TIER 3	0.08	0.26	4.5	1.83	0.34	1.09	18.86	7.67
	Incoming/Outgoing Trains							
	EPA Line-Haul Emission Factors (g/bhp-hr)				Annual Emissions tons/yr			
	PM10	HC	NOx	CO	PM10	HC	NOx	CO
TIER 1	0.32	0.47	6.7	1.28	0.12	0.18	2.60	0.50
TIER 2	0.18	0.26	4.95	1.28	0.07	0.10	1.92	0.50
TIER 3	0.08	0.13	4.95	1.28	0.03	0.05	1.92	0.50

CO2 Emissions Calculations:

from http://www.arb.ca.gov/msprog/moyer/guidelines/retooling_attach4.pdf:

fuel consumption rate factor (bhp-hr/gal) 20

From EPA Emissions Factors from Locomotives:

Density, Diesel (g/gal)=	3200
Carbon Content =	0.87
g co2/g c	3.67
g/ton	908000

Project Assumptions

Engine HP (bhp) =	4400
Operating Time (hr), unloading	864
Operating Time (hr), incoming	79.92

Total CO2 emissions

ton/yr unloading	2136.93	<--will be zero w/ electric
ton/yr incoming	197.67	

Storage Tanks Emissions

Calculations Spreadhseet

EPA Tanks 4.0 v9d Output File

Storage Tank Emissions Calculations Spreadsheet, Page 1

TANK #	PRODUCT	CAPACITY (BBLS)	CAPACITY (Gal)	TANK DIA. (FT)	TANK HEIGHT (FT)	RVP PSIA @ 100 F	TANK ROOF TYPE			Tank Throughput (gal/yr)
							Cone	Pan	2ND Seal	
T-1	Bio-fuel (B100)	20,000	840,000	56	48	***	Yes	Yes	Yes	30,660,000
T-2	"Swing" Tank	50,000	2,100,000	86	48	7-15	Yes	Yes	Yes	42,020,625
T-3	Additives	10,000	420,000	40	48	7-15	Yes	Yes	Yes	96,000
T-4	Additives	10,000	420,000	40	48	7-15	Yes	Yes	Yes	96,000
T-5	Trans Mix	10,000	420,000	40	48	7-15	Yes	Yes	Yes	1,000,000
T-6	Ethanol	20,000	840,000	56	48	3.5	Yes	Yes	Yes	7,665,000
T-7	Ethanol	20,000	840,000	56	48	3.5	Yes	Yes	Yes	7,665,000
T-8	Ethanol	20,000	840,000	56	48	3.5	Yes	Yes	Yes	7,665,000
T-9	Ethanol	20,000	840,000	56	48	3.5	Yes	Yes	Yes	7,665,000
T-10	Crude Oil	50,000	2,100,000	86	48	5	Yes	Yes	No	22,995,000
T-11	Crude Oil	50,000	2,100,000	86	48	5	Yes	Yes	No	22,995,000
T-12	Crude Oil	50,000	2,100,000	86	48	5	Yes	Yes	No	22,995,000
T-13	Crude Oil	50,000	2,100,000	86	48	5	Yes	Yes	No	22,995,000
T-14	Crude Oil	50,000	2,100,000	86	48	5	Yes	Yes	No	22,995,000
T-15	Ethanol	80,000	3,360,000	110	48	3.5	Yes	Yes	Yes	30,660,000
T-16	Low Sulfur Diesel	80,000	3,360,000	110	48	***	Yes	Yes	No	71,284,500
T-17	Regular Gasoline	50,000	2,100,000	110	48	7-15	Yes	Yes	Yes	97,728,750
T-18	Premium Gasoline	50,000	2,100,000	86	48	7-15	Yes	Yes	Yes	81,440,625
T-19	Bio Diesel (B20)	80,000	3,360,000	110	48	***	Yes	Yes	No	71,284,500
T-20	Ultra Low Sulfur Diesel	80,000	3,360,000	110	48	***	Yes	Yes	No	71,284,500
										643,190,500

Assumes an average VOC control of 98% on Withdrawl Emissions (Drain-Dry and Truck Loading Rack Emissions)

* Truck Loading Rack Vapor Control - Equiped with a John Zink Hydrocarbon Vapor Recovery Unit, meets SJVAPCD Rule 4624, 5.0 Requirements, r

Drain-Dry Cycle Vapor Recovery Unit - Vapors are extracted and destroyed through an incinerator with 98% efficiency

Storage Tank Emissions Calculations Spreadsheet, Page 2

bbls/yr	bbls/day	Tank ROG Emissions (lbs/yr)				Total Uncontrolled ROG Emissions (tons/yr)	Total ROG Emissions w/ vapor recovery (tons/yr)*
		Rim Seal	Withdrawl	Deck Fitting	Deck Seam		
730,000	2,000	N/A	N/A	N/A	N/A	N/A	N/A
1,000,491	2,741	297	20,412	1,576	0	11.14	1.14
2,286	6	165	45	119	0	0.16	0.14
2,286	6	165	45	119	0	0.16	0.14
23,810	65	138	472	939	0	0.77	0.54
182,500	500	20	3,047	117	0	1.59	0.10
182,500	500	20	3,047	117	0	1.59	0.10
182,500	500	20	3,047	117	0	1.59	0.10
182,500	500	20	3,047	117	0	1.59	0.10
547,500	1,500	589	25,574	323	0	13.24	0.71
547,500	1,500	589	25,574	323	0	13.24	0.71
547,500	1,500	589	25,574	323	0	13.24	0.71
547,500	1,500	589	25,574	323	0	13.24	0.71
547,500	1,500	589	25,574	323	0	13.24	0.71
730,000	2,000	40	6,205	216	0	3.23	0.19
1,697,250	4,650	10	15,496	6	0	7.76	0.16
2,326,875	6,375	297	21,432	1,576	0	11.65	1.15
1,939,063	5,313	593	17,860	3,144	0	10.80	2.05
1,697,250	4,650	10	15,496	6	0	7.76	0.16
1,697,250	4,650	10	15,496	6	0	7.76	0.16
15,314,060	41,956			Total ROG Emissions (tons/		**133.78**	**9.80**

educing the emissions of VOCs to 0.08 pounds or less per 1,000 gallons loaded.

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	50-Crude
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	50,000 bbls Crude Oil tank

Tank Dimensions

Diameter (ft):		86.00
Volume (gallons):		2,100,000.00
Turnovers:		10.95
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	26
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Detail Format
Liquid Contents of Storage Tank

50-Crude - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Crude oil (RVP 5)	All	63.76	57.19	70.34	61.57	3.0969	N/A	N/A	50.0000			207.00	Option 4: RVP=5

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

50-Crude - Internal Floating Roof Tank
Stockton, California

Annual Emission Calcaulations

Rim Seal Losses (lb):	588.5451
Seal Factor A (lb-mole/ft-yr):	5.8000
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.3000
Value of Vapor Pressure Function:	0.0590
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	3.0969
Tank Diameter (ft):	86.0000
Vapor Molecular Weight (lb/lb-mole):	50.0000
Product Factor:	0.4000
Withdrawal Losses (lb):	25,574.4890
Number of Columns:	0.0000
Effective Column Diameter (ft):	0.0000
Annual Net Throughput (gal/yr.):	22,995,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.6000 → gasoline = 0.15
Average Organic Liquid Density (lb/gal):	7.1000
Tank Diameter (ft):	86.0000
Deck Fitting Losses (lb):	322.8266
Value of Vapor Pressure Function:	0.0590
Vapor Molecular Weight (lb/lb-mole):	50.0000
Product Factor:	0.4000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	273.6000
Deck Seam Losses (lb):	0.0000
Deck Seam Length (ft):	0.0000
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000
Tank Diameter (ft):	86.0000
Vapor Molecular Weight (lb/lb-mole):	50.0000
Product Factor:	0.4000
Total Losses (lb):	26,485.8607

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors KFa(lb-mole/yr)	KFb(lb-mole/(yr mph^n))	m	Losses(lb)
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1	36.00	5.90	1.20	42.4772
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1	14.00	5.40	1.10	16.5189
Roof Leg or Hanger Well/Adjustable	26	7.90	0.00	0.00	242.3560
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	14.1591
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	7.3155

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

50-Crude - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Crude oil (RVP 5)	588.55	25,574.49	322.83	0.00	26,485.86

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	10-Additive Tank
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	10,000 bbl additive tank

Tank Dimensions

Diameter (ft):		40.00
Volume (gallons):		420,000.00
Turnovers:		0.23
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	12
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d

Emissions Report - Summary Format
Liquid Contents of Storage Tank

10-Additive Tank - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 9)	All	63.76	57.19	70.34	61.57	4.9630	N/A	N/A	67.0000			92.00	Option 4: RVP=9, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

10-Additive Tank - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 9)	164.77	45.26	1,119.04	0.00	1,329.07

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	80-Ethanol
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	80,000 bbl capacity ethanol storage tanke

Tank Dimensions

Diameter (ft):		110.00
Volume (gallons):		3,360,000.00
Turnovers:		9.13
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	37
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

80-Ethanol - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Ethyl alcohol	All	63.76	57.19	70.34	61.57	0.7477	N/A	N/A	46.0700			46.07	Option 2: A=8.321, B=1718.21, C=237.52

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

80-Ethanol - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Ethyl alcohol	39.63	6,204.90	216.46	0.00	6,460.99

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	20-Ethanol
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	20,000 bbl Ethanol Tank

Tank Dimensions

Diameter (ft):		56.00
Volume (gallons):		840,000.00
Turnovers:		9.13
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	16
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

20-Ethanol - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Ethyl alcohol	All	63.76	57.19	70.34	61.57	0.7477	N/A	N/A	46.0700			46.07	Option 2: A=8.321, B=1718.21, C=237.52

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

20-Ethanol - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Ethyl alcohol	20.17	3,047.05	116.85	0.00	3,184.07

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	80 - BioDiesel
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	80,000 bbl - B-20 Biodiesel tank

Tank Dimensions

Diameter (ft):	110.00
Volume (gallons):	3,360,000.00
Turnovers:	21.22
Self Supp. Roof? (y/n):	Y
No. of Columns:	0.00
Eff. Col. Diam. (ft):	0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	37
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

80 - BioDiesel - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	63.76	57.19	70.34	61.57	0.0074	N/A	N/A	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

80 - BioDiesel - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Distillate fuel oil no. 2	10.49	15,495.82	5.92	0.00	15,512.23

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	20 - B100 Biofuel
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	20,000 bbl Biofuel Tank

Tank Dimensions

Diameter (ft):		56.00
Volume (gallons):		840,000.00
Turnovers:		36.50
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	16
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

20 - B100 Biofuel - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
B100 Biofuel	All	63.76	57.19	70.34	61.57	0.0044	N/A	N/A	292.2000			292.20	Option 4: RVP=.04

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

20 - B100 Biofuel - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
B100 Biofuel	2.87	54,048.45	1.72	0.00	54,053.03

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	10 - Transmix
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	10,000 bbl Transmix Tank

Tank Dimensions

Diameter (ft):		40.00
Volume (gallons):		420,000.00
Turnovers:		2.38
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	12
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

10 - Transmix - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 7.8)	All	63.76	57.19	70.34	61.57	4.2375	N/A	N/A	68.0000			92.00	Option 4: RVP=7.8, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

10 - Transmix - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 7.8)	138.21	471.50	938.70	0.00	1,548.42

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	20-Ethanol
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	20,000 bbl Ethanol Tank

Tank Dimensions

Diameter (ft):		56.00
Volume (gallons):		840,000.00
Turnovers:		6.16
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	16
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

20-Ethanol - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Ethyl alcohol	All	63.76	57.19	70.34	61.57	0.7477	N/A	N/A	46.0700			46.07	Option 2: A=8.321, B=1718.21, C=237.52

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

20-Ethanol - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Ethyl alcohol	20.17	2,056.76	116.85	0.00	2,193.78

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	50 - Swing
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	50,000 bbl Swing Tank

Tank Dimensions

Diameter (ft):		86.00
Volume (gallons):		2,100,000.00
Turnovers:		44.32
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	26
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

50 - Swing - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 7.8)	All	63.76	57.19	70.34	61.57	4.2375	N/A	N/A	68.0000			92.00	Option 4: RVP=7.8, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

50 - Swing - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 7.8)	297.16	20,411.56	1,575.64	0.00	22,284.36

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	50 -Reg Gas
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	50,000 bbl Regular Gasoline

Tank Dimensions

Diameter (ft):		86.00
Volume (gallons):		2,100,000.00
Turnovers:		46.54
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	26
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

50 -Reg Gas - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 7.8)	All	63.76	57.19	70.34	61.57	4.2375	N/A	N/A	68.0000			92.00	Option 4: RVP=7.8, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

50 -Reg Gas - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 7.8)	297.16	21,432.14	1,575.64	0.00	23,304.94

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	50-Prem. Gas
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	50,000 bbl Premium Gasoline

Tank Dimensions

Diameter (ft):		86.00
Volume (gallons):		2,100,000.00
Turnovers:		38.78
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	26
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

50-Prem. Gas - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 13.5)	All	63.76	57.19	70.34	61.57	7.7663	N/A	N/A	62.0000			92.00	Option 4: RVP=13.5, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

50-Prem. Gas - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 13.5)	593.01	17,860.12	3,144.34	0.00	21,597.47

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	80 - Diesel
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	80,000 bbl ULSD or LSD Tank

Tank Dimensions

Diameter (ft):	110.00
Volume (gallons):	3,360,000.00
Turnovers:	21.22
Self Supp. Roof? (y/n):	Y
No. of Columns:	0.00
Eff. Col. Diam. (ft):	0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	37
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

80 - Diesel - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	63.76	57.19	70.34	61.57	0.0074	N/A	N/A	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

80 - Diesel - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Distillate fuel oil no. 2	10.49	15,495.82	5.92	0.00	15,512.23

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	80-Ethanol
City:	Stockton
State:	California
Company:	TARGA
Type of Tank:	Internal Floating Roof Tank
Description:	80,000 bbl capacity ethanol storage tanke

Tank Dimensions

Diameter (ft):		110.00
Volume (gallons):		3,360,000.00
Turnovers:		6.16
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Gunite Lining
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	37
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

Emissions Report - Summary Format
Liquid Contents of Storage Tank

80-Ethanol - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Ethyl alcohol	All	63.76	57.19	70.34	61.57	0.7477	N/A	N/A	46.0700			46.07	Option 2: A=8.321, B=1718.21, C=237.52

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

80-Ethanol - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Ethyl alcohol	39.63	4,188.31	216.46	0.00	4,444.39

Trucking Emissions Calculations

CALIMFAC v2.3 Output File

```
1
 **
 ** CALIMFAC V2.3 Nov 1 2006
 **
 ** California Motor Vehicle Emissions Factor Model
 **
 ** Scenario title: Targa -Stockton Terminal
 **
 ** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
 **
 ** Date of this run: 2011/11/04 10:57:13
 **
 ** I/M Program Summary
 **


     This run reflects the following program options:
          Program 1 BAR 1984 (1984)
          Subprogram 1


          Program start year:                      1984
          Inspection frequency:                    Biennial
          Change of ownership rate:                17.00 %
          Random roadside inspection rate:          0.00 %
          Remote sensing inspection rate:           0.00 %
          Tamper detection inspection rate:         0.00 %
          Inspection test type:                    Idle Only
          Visual/functional checks:                88 Level (AI/EGR/O2S/Cat)
          Emission standard stringency:            84 Cutpoints
          Repair cost limits:                      $50
          Mechanic performance - inspections:      INITIAL
          Mechanic performance - repairs:          INITIAL
          Model years included:
            Min. age for inspected vehicles:         0
            Max. age for inspected vehicles:        45
            Earliest model year in program:         1966
            Latest model year in program:           1979
          Vehicle Exemptions:
            Years before inspection for new cars:    1
            Inspection-free year after pass?        F
            Years before change of ownership insp:  0


     This run reflects the following program options:
          Program 1 BAR 1984 (1984)
          Subprogram 2


          Program start year:                      1984
          Inspection frequency:                    Biennial
          Change of ownership rate:                17.00 %
```

```
Random roadside inspection rate:          0.00 %
Remote sensing inspection rate:           0.00 %
Tamper detection inspection rate:         0.00 %
Inspection test type:                    Idle/2500
Visual/functional checks:                88 Level (AI/EGR/O2S/Cat)
Emission standard stringency:            84 Cutpoints
Repair cost limits:                      $50
Mechanic performance - inspections:      INITIAL
Mechanic performance - repairs:          INITIAL
Model years included:
  Min. age for inspected vehicles:         0
  Max. age for inspected vehicles:        45
  Earliest model year in program:         1980
  Latest model year in program:           2040
Vehicle Exemptions:
  Years before inspection for new cars:    1
  Inspection-free year after pass?        F
  Years before change of ownership insp:  0
```

This run reflects the following program options:
Program 2 COO 1984 (1984)
Subprogram 1

```
Program start year:                      1984
Inspection frequency:                    Change of Ownership Only
Change of ownership rate:                17.00 %
Random roadside inspection rate:          0.00 %
Remote sensing inspection rate:           0.00 %
Tamper detection inspection rate:         0.00 %
Inspection test type:                    Idle Only
Visual/functional checks:                88 Level (AI/EGR/O2S/Cat)
Emission standard stringency:            84 Cutpoints
Repair cost limits:                      $50
Mechanic performance - inspections:      INITIAL
Mechanic performance - repairs:          INITIAL
Model years included:
  Min. age for inspected vehicles:         0
  Max. age for inspected vehicles:        45
  Earliest model year in program:         1966
  Latest model year in program:           1979
Vehicle Exemptions:
  Years before inspection for new cars:    1
  Inspection-free year after pass?        F
  Years before change of ownership insp:  0
```

This run reflects the following program options:
Program 2 COO 1984 (1984)
Subprogram 2

Program start year:	1984
Inspection frequency:	Change of Ownership Only
Change of ownership rate:	17.00 %
Random roadside inspection rate:	0.00 %
Remote sensing inspection rate:	0.00 %
Tamper detection inspection rate:	0.00 %
Inspection test type:	Idle/2500
Visual/functional checks:	88 Level (AI/EGR/O2S/Cat)
Emission standard stringency:	84 Cutpoints
Repair cost limits:	$50
Mechanic performance - inspections:	INITIAL
Mechanic performance - repairs:	INITIAL
Model years included:	
Min. age for inspected vehicles:	0
Max. age for inspected vehicles:	45
Earliest model year in program:	1980
Latest model year in program:	2040
Vehicle Exemptions:	
Years before inspection for new cars:	1
Inspection-free year after pass?	F
Years before change of ownership insp:	0

This run reflects the following program options:
Program 3 BAR 1990A (1990)
Subprogram 1

Program start year:	1990
Inspection frequency:	Biennial
Change of ownership rate:	17.00 %
Random roadside inspection rate:	0.00 %
Remote sensing inspection rate:	0.00 %
Tamper detection inspection rate:	0.00 %
Inspection test type:	Idle Only
Visual/functional checks:	Full
Emission standard stringency:	90 Cutpoints
Repair cost limits:	SB 1997
Mechanic performance - inspections:	ENHANCED
Mechanic performance - repairs:	ENHANCED

```
Model years included:
  Min. age for inspected vehicles:          0
  Max. age for inspected vehicles:         45
  Earliest model year in program:          1966
  Latest model year in program:            2040
Vehicle Exemptions:
  Years before inspection for new cars:     1
  Inspection-free year after pass?         F
  Years before change of ownership insp:   0
```

```
This run reflects the following program options:
     Program 3 BAR 1990A (1990)
     Subprogram 2

     Program start year:                      1990
     Inspection frequency:                    Biennial
     Change of ownership rate:                17.00 %
     Random roadside inspection rate:          0.00 %
     Remote sensing inspection rate:           0.00 %
     Tamper detection inspection rate:         0.00 %
     Inspection test type:                    Idle Only
     Visual/functional checks:                Full
     Emission standard stringency:            90 Cutpoints
     Repair cost limits:                      SB 1997
     Mechanic performance - inspections:      ENHANCED
     Mechanic performance - repairs:          ENHANCED
     Model years included:
       Min. age for inspected vehicles:          0
       Max. age for inspected vehicles:         45
       Earliest model year in program:          1966
       Latest model year in program:            1979
     Vehicle Exemptions:
       Years before inspection for new cars:     1
       Inspection-free year after pass?         F
       Years before change of ownership insp:   0
```

```
This run reflects the following program options:
     Program 3 BAR 1990A (1990)
```

Subprogram 3

Program start year:	1990
Inspection frequency:	Biennial
Change of ownership rate:	17.00 %
Random roadside inspection rate:	0.00 %
Remote sensing inspection rate:	0.00 %
Tamper detection inspection rate:	0.00 %
Inspection test type:	Idle/2500
Visual/functional checks:	Full
Emission standard stringency:	90 Cutpoints
Repair cost limits:	SB 1997
Mechanic performance - inspections:	ENHANCED
Mechanic performance - repairs:	ENHANCED
Model years included:	
Min. age for inspected vehicles:	0
Max. age for inspected vehicles:	45
Earliest model year in program:	1980
Latest model year in program:	2040
Vehicle Exemptions:	
Years before inspection for new cars:	1
Inspection-free year after pass?	F
Years before change of ownership insp:	0

This run reflects the following program options:

Program 4 COO 1990A (1990)

Subprogram 1

Program start year:	1990
Inspection frequency:	Change of Ownership Only
Change of ownership rate:	17.00 %
Random roadside inspection rate:	0.00 %
Remote sensing inspection rate:	0.00 %
Tamper detection inspection rate:	0.00 %
Inspection test type:	Idle Only
Visual/functional checks:	Full
Emission standard stringency:	90 Cutpoints
Repair cost limits:	SB 1997
Mechanic performance - inspections:	ENHANCED
Mechanic performance - repairs:	ENHANCED
Model years included:	
Min. age for inspected vehicles:	0
Max. age for inspected vehicles:	45
Earliest model year in program:	1966
Latest model year in program:	2040
Vehicle Exemptions:	
Years before inspection for new cars:	1
Inspection-free year after pass?	F
Years before change of ownership insp:	0

```
This run reflects the following program options:
     Program 4 COO 1990A (1990)
     Subprogram 2

     Program start year:                        1990
     Inspection frequency:                      Change of Ownership Only
     Change of ownership rate:                  17.00 %
     Random roadside inspection rate:            0.00 %
     Remote sensing inspection rate:             0.00 %
     Tamper detection inspection rate:           0.00 %
     Inspection test type:                      Idle Only
     Visual/functional checks:                  Full
     Emission standard stringency:              90 Cutpoints
     Repair cost limits:                        SB 1997
     Mechanic performance - inspections:        ENHANCED
     Mechanic performance - repairs:            ENHANCED
     Model years included:
       Min. age for inspected vehicles:           0
       Max. age for inspected vehicles:          45
       Earliest model year in program:           1966
       Latest model year in program:             1979
     Vehicle Exemptions:
       Years before inspection for new cars:      1
       Inspection-free year after pass?          F
       Years before change of ownership insp:    0
```

```
This run reflects the following program options:
     Program 4 COO 1990A (1990)
     Subprogram 3

     Program start year:                        1990
     Inspection frequency:                      Change of Ownership Only
     Change of ownership rate:                  17.00 %
     Random roadside inspection rate:            0.00 %
     Remote sensing inspection rate:             0.00 %
     Tamper detection inspection rate:           0.00 %
```

```
Inspection test type:                    Idle/2500
Visual/functional checks:                Full
Emission standard stringency:            90 Cutpoints
Repair cost limits:                      SB 1997
Mechanic performance - inspections:      ENHANCED
Mechanic performance - repairs:          ENHANCED
Model years included:
  Min. age for inspected vehicles:         0
  Max. age for inspected vehicles:        45
  Earliest model year in program:         1980
  Latest model year in program:           2040
Vehicle Exemptions:
  Years before inspection for new cars:    1
  Inspection-free year after pass?        F
  Years before change of ownership insp:  0
```

```
This run reflects the following program options:
     Program 5 BAR 1990B (1996)
     Subprogram 1

     Program start year:                     1996
     Inspection frequency:                   Biennial
     Change of ownership rate:               17.00 %
     Random roadside inspection rate:         0.00 %
     Remote sensing inspection rate:          0.00 %
     Tamper detection inspection rate:        0.00 %
     Inspection test type:                   Idle/2500
     Visual/functional checks:               Full
     Emission standard stringency:           96 Cutpoints
     Repair cost limits:                     SB 1997
     Mechanic performance - inspections:     ENHANCED
     Mechanic performance - repairs:         ENHANCED
     Model years included:
       Min. age for inspected vehicles:         0
       Max. age for inspected vehicles:        45
       Earliest model year in program:         1966
       Latest model year in program:           2040
     Vehicle Exemptions:
       Years before inspection for new cars:    1
       Inspection-free year after pass?        F
       Years before change of ownership insp:  0
```

```
This run reflects the following program options:
     Program 6 COO 1990B (1996)
     Subprogram 1

     Program start year:                        1996
     Inspection frequency:                      Change of Ownership Only
     Change of ownership rate:                  17.00 %
     Random roadside inspection rate:            0.00 %
     Remote sensing inspection rate:             0.00 %
     Tamper detection inspection rate:           0.00 %
     Inspection test type:                      Idle/2500
     Visual/functional checks:                  Full
     Emission standard stringency:              96 Cutpoints
     Repair cost limits:                        SB 1997
     Mechanic performance - inspections:        ENHANCED
     Mechanic performance - repairs:            ENHANCED
     Model years included:
       Min. age for inspected vehicles:           0
       Max. age for inspected vehicles:          45
       Earliest model year in program:           1966
       Latest model year in program:             2040
     Vehicle Exemptions:
       Years before inspection for new cars:      1
       Inspection-free year after pass?          F
       Years before change of ownership insp:    0


This run reflects the following program options:
     Program 7 Enhanced Basic (1998)
     Subprogram 1

     Program start year:                        1998
     Inspection frequency:                      Biennial
     Change of ownership rate:                  17.00 %
     Random roadside inspection rate:            0.00 %
     Remote sensing inspection rate:             0.00 %
     Tamper detection inspection rate:           0.00 %
     Inspection test type:                      Idle/2500
     Visual/functional checks:                  Full
     Emission standard stringency:              96 Cutpoints
     Repair cost limits:                        $450-CAA
     Mechanic performance - inspections:        ENHANCED
     Mechanic performance - repairs:            ENHANCED
     Model years included:
       Min. age for inspected vehicles:           0
       Max. age for inspected vehicles:          30
```

```
  Earliest model year in program:          1974
  Latest model year in program:            2040
Vehicle Exemptions:
  Years before inspection for new cars:     4
  Inspection-free year after pass?         F
  Years before change of ownership insp:   0
```

```
This run reflects the following program options:
     Program 8 COO Basic (1998)
     Subprogram 1

     Program start year:                      1998
     Inspection frequency:                    Change of Ownership Only
     Change of ownership rate:                17.00 %
     Random roadside inspection rate:          0.00 %
     Remote sensing inspection rate:           0.00 %
     Tamper detection inspection rate:         0.00 %
     Inspection test type:                    Idle/2500
     Visual/functional checks:                Full
     Emission standard stringency:            96 Cutpoints
     Repair cost limits:                      $450-CAA
     Mechanic performance - inspections:      ENHANCED
     Mechanic performance - repairs:          ENHANCED
     Model years included:
       Min. age for inspected vehicles:         0
       Max. age for inspected vehicles:        30
       Earliest model year in program:         1974
       Latest model year in program:           2040
     Vehicle Exemptions:
       Years before inspection for new cars:    4
       Inspection-free year after pass?        F
       Years before change of ownership insp:  0
```

```
This run reflects the following program options:
     Program 9 Enhanced Interim (2001)
     Subprogram 1
```

```
Program start year:                        2001
Inspection frequency:                      Biennial
Change of ownership rate:                  17.00 %
Random roadside inspection rate:            0.00 %
Remote sensing inspection rate:             0.00 %
Tamper detection inspection rate:           0.00 %
Inspection test type:                      Idle/2500
Visual/functional checks:                  Full
Emission standard stringency:              96 Cutpoints
Repair cost limits:                        $450-CAA
Mechanic performance - inspections:        ENHANCED
Mechanic performance - repairs:            ENHANCED
Model years included:
  Min. age for inspected vehicles:           0
  Max. age for inspected vehicles:          30
  Earliest model year in program:           1974
  Latest model year in program:             2040
Vehicle Exemptions:
  Years before inspection for new cars:      4
  Inspection-free year after pass?          F
  Years before change of ownership insp:    0
```

```
This run reflects the following program options:
     Program 9 Enhanced Interim (2001)
     Subprogram 2

     Program start year:                   2001
     Inspection frequency:                 Biennial
     Change of ownership rate:             17.00 %
     Random roadside inspection rate:       0.00 %
     Remote sensing inspection rate:        0.00 %
     Tamper detection inspection rate:      0.00 %
     Inspection test type:                 ASM
     Visual/functional checks:             Full
     Emission standard stringency:         Interim Cutpts
     Repair cost limits:                   $450-CAA
     Mechanic performance - inspections:   ENHANCED
     Mechanic performance - repairs:       ENHANCED
     Model years included:
       Min. age for inspected vehicles:       0
       Max. age for inspected vehicles:      30
       Earliest model year in program:       1974
       Latest model year in program:         2040
     Vehicle Exemptions:
       Years before inspection for new cars:  4
       Inspection-free year after pass?      F
       Years before change of ownership insp: 0
```

```
This run reflects the following program options:
     Program 10 Enhanced Basic (2005)
     Subprogram 1

     Program start year:                        2005
     Inspection frequency:                      Biennial
     Change of ownership rate:                  17.00 %
     Random roadside inspection rate:            0.00 %
     Remote sensing inspection rate:             0.00 %
     Tamper detection inspection rate:           0.00 %
     Inspection test type:                      Idle/2500
     Visual/functional checks:                  Full
     Emission standard stringency:              96 Cutpoints
     Repair cost limits:                        $450-CAA
     Mechanic performance - inspections:        ENHANCED
     Mechanic performance - repairs:            ENHANCED
     Model years included:
       Min. age for inspected vehicles:           0
       Max. age for inspected vehicles:          45
       Earliest model year in program:           1976
       Latest model year in program:             2040
     Vehicle Exemptions:
       Years before inspection for new cars:      6
       Inspection-free year after pass?          F
       Years before change of ownership insp:    4
```

```
This run reflects the following program options:
     Program 11 COO Basic (2005)
     Subprogram 1

     Program start year:                        2005
     Inspection frequency:                      Change of Ownership Only
     Change of ownership rate:                  17.00 %
     Random roadside inspection rate:            0.00 %
     Remote sensing inspection rate:             0.00 %
     Tamper detection inspection rate:           0.00 %
     Inspection test type:                      Idle/2500
     Visual/functional checks:                  Full
     Emission standard stringency:              96 Cutpoints
```

```
Repair cost limits:                        $450-CAA
Mechanic performance - inspections:        ENHANCED
Mechanic performance - repairs:            ENHANCED
Model years included:
  Min. age for inspected vehicles:           0
  Max. age for inspected vehicles:          45
  Earliest model year in program:           1976
  Latest model year in program:             2040
Vehicle Exemptions:
  Years before inspection for new cars:      6
  Inspection-free year after pass?          F
  Years before change of ownership insp:    4
```

```
This run reflects the following program options:
     Program 12 Enhanced Interim (2005)
     Subprogram 1

     Program start year:                   2005
     Inspection frequency:                 Biennial
     Change of ownership rate:             17.00 %
     Random roadside inspection rate:       0.00 %
     Remote sensing inspection rate:        0.00 %
     Tamper detection inspection rate:      0.00 %
     Inspection test type:                 Idle/2500
     Visual/functional checks:             Full
     Emission standard stringency:         96 Cutpoints
     Repair cost limits:                   $450-CAA
     Mechanic performance - inspections:   ENHANCED
     Mechanic performance - repairs:       ENHANCED
     Model years included:
       Min. age for inspected vehicles:       0
       Max. age for inspected vehicles:      45
       Earliest model year in program:       1976
       Latest model year in program:         2040
     Vehicle Exemptions:
       Years before inspection for new cars:  6
       Inspection-free year after pass?      F
       Years before change of ownership insp: 4
```

```
This run reflects the following program options:
     Program 12 Enhanced Interim (2005)
     Subprogram 2


     Program start year:                        2005
     Inspection frequency:                      Biennial
     Change of ownership rate:                  17.00 %
     Random roadside inspection rate:            0.00 %
     Remote sensing inspection rate:             0.00 %
     Tamper detection inspection rate:           0.00 %
     Inspection test type:                      ASM
     Visual/functional checks:                  Full
     Emission standard stringency:              Interim Cutpts
     Repair cost limits:                        $450-CAA
     Mechanic performance - inspections:        ENHANCED
     Mechanic performance - repairs:            ENHANCED
     Model years included:
       Min. age for inspected vehicles:           0
       Max. age for inspected vehicles:          45
       Earliest model year in program:           1976
       Latest model year in program:             2040
     Vehicle Exemptions:
       Years before inspection for new cars:      6
       Inspection-free year after pass?          F
       Years before change of ownership insp:    4


This run reflects the following program options:
     Program 13 Enhanced SIP (2010) Placeholder
     Subprogram 1


     Program start year:                        2010
     Inspection frequency:                      Biennial
     Change of ownership rate:                  17.00 %
     Random roadside inspection rate:            0.00 %
     Remote sensing inspection rate:             0.00 %
     Tamper detection inspection rate:           0.00 %
     Inspection test type:                      Idle/2500
     Visual/functional checks:                  Full
     Emission standard stringency:              96 Cutpoints
     Repair cost limits:                        $450-CAA
     Mechanic performance - inspections:        ENHANCED
     Mechanic performance - repairs:            ENHANCED
     Model years included:
       Min. age for inspected vehicles:           0
       Max. age for inspected vehicles:          45
       Earliest model year in program:           1976
       Latest model year in program:             2040
     Vehicle Exemptions:
```

```
  Years before inspection for new cars:    6
  Inspection-free year after pass?        F
  Years before change of ownership insp:  4
```

```
This run reflects the following program options:
     Program 13 Enhanced SIP (2010) Placeholder
     Subprogram 2

     Program start year:                      2010
     Inspection frequency:                    Biennial
     Change of ownership rate:                17.00 %
     Random roadside inspection rate:          0.00 %
     Remote sensing inspection rate:           0.00 %
     Tamper detection inspection rate:         0.00 %
     Inspection test type:                    ASM
     Visual/functional checks:                Full
     Emission standard stringency:            SIP Cutpoints
     Repair cost limits:                      $450-CAA
     Mechanic performance - inspections:      ENHANCED
     Mechanic performance - repairs:          ENHANCED
     Model years included:
       Min. age for inspected vehicles:         0
       Max. age for inspected vehicles:        45
       Earliest model year in program:         1976
       Latest model year in program:           2040
     Vehicle Exemptions:
       Years before inspection for new cars:    6
       Inspection-free year after pass?        F
       Years before change of ownership insp:  4
```

```
1
 **
 ** CALIMFAC V2.3 Nov 1 2006
 **
 ** California Motor Vehicle Emissions Factor Model
 **
 ** Scenario title: Targa -Stockton Terminal
 **
 ** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
 **
```

** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations Medium HD Trucks (T6) With I/M
**
** FTP COMP Hydrocarbons Corrected
**

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	8.0638	-0.0077	48.9147	-0.0077	8.064	8.025	7.986
1968	7.7096	-0.0085	48.9147	-0.0085	7.710	7.667	7.624
1969	7.8486	-0.0107	49.6356	-0.0107	7.849	7.795	7.742
1970	7.8557	-0.0130	49.5339	-0.0130	7.856	7.791	7.726
1971	7.8263	-0.0153	48.6777	-0.0153	7.826	7.750	7.673
1972	7.9452	-0.0183	48.6574	-0.0183	7.945	7.854	7.762
1973	8.0534	-0.0216	49.6688	-0.0216	8.053	7.945	7.837
1974	7.8355	-0.0245	48.1428	-0.0245	7.836	7.713	7.591
1975	7.8746	-0.0286	48.8560	-0.0286	7.875	7.731	7.588
1976	7.8965	-0.0330	49.3219	-0.0330	7.897	7.732	7.567
1977	1.6104	0.0756	49.6588	0.0756	1.610	1.989	2.367
1978	1.5414	0.0630	49.1505	0.0630	1.541	1.856	2.171
1979	1.5432	0.0549	50.0193	0.0549	1.543	1.818	2.092
1980	1.4790	0.0445	49.5984	0.0445	1.479	1.702	1.924
1981	1.2995	0.0329	50.5554	0.0329	1.300	1.464	1.629
1982	1.3151	0.0284	50.8105	0.0284	1.315	1.457	1.600
1983	1.3614	0.0255	50.9645	0.0255	1.361	1.489	1.617
1984	1.5634	0.0010	51.5306	0.0010	1.563	1.568	1.573
1985	1.5530	-0.0008	50.9263	-0.0008	1.553	1.549	1.545
1986	1.4398	-0.0012	49.8076	-0.0012	1.440	1.434	1.428
1987	1.1905	0.0011	49.1079	0.0011	1.190	1.196	1.201
1988	0.4562	0.0043	48.7708	0.0043	0.456	0.478	0.499
1989	0.4312	0.0046	47.7967	0.0046	0.431	0.454	0.477
1990	0.3902	0.0053	46.7680	0.0053	0.390	0.417	0.443
1991	0.2254	0.0104	46.1451	0.0104	0.225	0.277	0.329
1992	0.2052	0.0110	45.1666	0.0110	0.205	0.260	0.315
1993	0.1821	0.0118	43.9975	0.0118	0.182	0.241	0.300
1994	0.1227	0.0119	43.3785	0.0119	0.123	0.182	0.242
1995	0.1221	0.0119	41.9744	0.0119	0.122	0.182	0.241
1996	0.1302	0.0115	40.5195	0.0115	0.130	0.188	0.245
1997	0.1226	0.0119	38.9935	0.0119	0.123	0.182	0.241
1998	0.1247	0.0109	37.2761	0.0109	0.125	0.179	0.234
1999	0.1228	0.0110	36.0430	0.0110	0.123	0.178	0.233
2000	0.1304	0.0103	33.8159	0.0103	0.130	0.182	0.233
2001	0.1337	0.0099	31.8645	0.0099	0.134	0.183	0.233
2002	0.1261	0.0106	29.8124	0.0106	0.126	0.179	0.232
2003	0.1069	0.0079	27.6941	0.0079	0.107	0.146	0.186
2004	0.0704	0.0024	25.4277	0.0024	0.070	0.083	0.095
2005	0.0726	0.0019	23.0958	0.0019	0.073	0.082	0.092
2006	0.0747	0.0015	20.5434	0.0015	0.075	0.082	0.090
2007	0.0532	0.0015	17.4624	0.0015	0.053	0.061	0.069
2008	0.0551	0.0009	14.7251	0.0009	0.055	0.060	0.064
2009	0.0576	-0.0001	11.8958	-0.0001	0.058	0.057	0.056
2010	0.0365	-0.0005	8.9894	-0.0005	0.036	0.034	0.031
2011	0.0403	-0.0032	6.0214	-0.0032	0.040	0.024	0.008

1
**
** CALIMFAC V2.3 Nov 1 2006
**
** California Motor Vehicle Emissions Factor Model
**
** Scenario title: Targa -Stockton Terminal
**
** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out

```
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations      Medium HD Trucks (T6)   With I/M
**
**                                FTP COMP  Carbon Monoxide          Corrected
**
```

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	168.0150	-0.1818	48.9147	-0.1818	168.015	167.106	166.197
1968	160.6998	-0.2034	48.9147	-0.2034	160.700	159.683	158.666
1969	163.5468	-0.2435	49.6356	-0.2435	163.547	162.330	161.112
1970	163.5917	-0.2886	49.5339	-0.2886	163.592	162.149	160.706
1971	163.0406	-0.3384	48.6777	-0.3384	163.041	161.349	159.656
1972	165.9969	-0.3990	48.6574	-0.3990	165.997	164.002	162.007
1973	167.8887	-0.4639	49.6688	-0.4639	167.889	165.569	163.250
1974	164.3052	-0.5795	48.1428	-0.5795	164.305	161.408	158.510
1975	165.5604	-0.6749	48.8560	-0.6749	165.560	162.186	158.812
1976	166.5370	-0.7877	49.3219	-0.7877	166.537	162.598	158.660
1977	71.5328	-0.4362	49.6588	-0.4362	71.533	69.352	67.171
1978	64.7223	-0.4365	49.1505	-0.4365	64.722	62.540	60.358
1979	62.1224	-0.4661	50.0193	-0.4661	62.122	59.792	57.462
1980	56.5393	-0.4678	49.5984	-0.4678	56.539	54.200	51.861
1981	46.0259	-0.4026	50.5554	-0.4026	46.026	44.013	42.000
1982	45.5513	-0.4373	50.8105	-0.4373	45.551	43.365	41.179
1983	47.0677	-0.4934	50.9645	-0.4934	47.068	44.601	42.134
1984	37.1570	-0.2216	51.5306	-0.2216	37.157	36.049	34.941
1985	37.0213	-0.2368	50.9263	-0.2368	37.021	35.838	34.654
1986	34.0659	-0.2177	49.8076	-0.2177	34.066	32.977	31.889
1987	28.8663	-0.1716	49.1079	-0.1716	28.866	28.008	27.150
1988	3.6709	0.0984	48.7708	0.0984	3.671	4.163	4.655
1989	3.5521	0.0989	47.7967	0.0989	3.552	4.046	4.541
1990	3.2708	0.0999	46.7680	0.0999	3.271	3.770	4.270
1991	1.5396	0.1583	46.1451	0.1583	1.540	2.331	3.123
1992	1.4720	0.1553	45.1666	0.1553	1.472	2.249	3.025
1993	1.4029	0.1505	43.9975	0.1505	1.403	2.155	2.908
1994	1.0366	0.1406	43.3785	0.1406	1.037	1.740	2.442
1995	1.0392	0.1384	41.9744	0.1384	1.039	1.731	2.423
1996	1.1336	0.1333	40.5195	0.1333	1.134	1.800	2.466
1997	1.0470	0.1317	38.9935	0.1317	1.047	1.706	2.364
1998	1.0625	0.1273	37.2761	0.1273	1.063	1.699	2.335
1999	1.0477	0.1280	36.0430	0.1280	1.048	1.688	2.328
2000	1.1380	0.1189	33.8159	0.1189	1.138	1.733	2.327
2001	1.1872	0.1135	31.8645	0.1135	1.187	1.755	2.322
2002	1.1182	0.1189	29.8124	0.1189	1.118	1.713	2.307
2003	1.2309	0.1149	27.6941	0.1149	1.231	1.805	2.380
2004	0.7946	0.0287	25.4277	0.0287	0.795	0.938	1.082
2005	0.8196	0.0229	23.0958	0.0229	0.820	0.934	1.049
2006	0.8434	0.0179	20.5434	0.0179	0.843	0.933	1.022
2007	0.5983	0.0184	17.4624	0.0184	0.598	0.691	0.783
2008	0.6189	0.0109	14.7251	0.0109	0.619	0.673	0.728
2009	0.6464	-0.0008	11.8958	-0.0008	0.646	0.642	0.638
2010	0.4043	-0.0050	8.9894	-0.0050	0.404	0.379	0.355
2011	0.4462	-0.0346	6.0214	-0.0346	0.446	0.273	0.100

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**
** CALIMFAC V2.3 Nov 1 2006
**
** California Motor Vehicle Emissions Factor Model
**
** Scenario title: Targa -Stockton Terminal
**
```

** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations Medium HD Trucks (T6) With I/M
**
** FTP COMP Oxides of Nitrogen Corrected
**

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	7.3893	0.0016	48.9147	0.0016	7.389	7.397	7.405
1968	8.0538	0.0020	48.9147	0.0020	8.054	8.064	8.074
1969	7.8798	0.0007	49.6356	0.0007	7.880	7.884	7.887
1970	7.9519	-0.0003	49.5339	-0.0003	7.952	7.950	7.949
1971	8.0810	-0.0012	48.6777	-0.0012	8.081	8.075	8.069
1972	7.9331	-0.0029	48.6574	-0.0029	7.933	7.919	7.904
1973	7.8748	-0.0048	49.6688	-0.0048	7.875	7.851	7.827
1974	8.3496	-0.0054	48.1428	-0.0054	8.350	8.323	8.296
1975	8.3865	-0.0072	48.8560	-0.0072	8.386	8.350	8.314
1976	8.4604	-0.0091	49.3219	-0.0091	8.460	8.415	8.369
1977	10.2341	0.0107	49.6588	0.0107	10.234	10.288	10.342
1978	11.5088	0.0046	49.1505	0.0046	11.509	11.532	11.555
1979	12.0858	-0.0015	50.0193	-0.0015	12.086	12.079	12.071
1980	13.1201	-0.0077	49.5984	-0.0077	13.120	13.081	13.043
1981	14.8522	-0.0112	50.5554	-0.0112	14.852	14.796	14.741
1982	15.0184	-0.0174	50.8105	-0.0174	15.018	14.932	14.845
1983	14.8258	-0.0225	50.9645	-0.0225	14.826	14.713	14.601
1984	15.4619	-0.0233	51.5306	-0.0233	15.462	15.345	15.229
1985	15.4516	-0.0288	50.9263	-0.0288	15.452	15.308	15.164
1986	15.8133	-0.0300	49.8076	-0.0300	15.813	15.663	15.514
1987	14.7083	-0.0305	49.1079	-0.0305	14.708	14.556	14.404
1988	14.9046	-0.0512	48.7708	-0.0512	14.905	14.648	14.392
1989	14.8180	-0.0500	47.7967	-0.0500	14.818	14.568	14.318
1990	14.9357	-0.0449	46.7680	-0.0449	14.936	14.711	14.487
1991	11.9404	0.0373	46.1451	0.0373	11.940	12.127	12.314
1992	11.9766	0.0432	45.1666	0.0432	11.977	12.193	12.409
1993	12.0288	0.0524	43.9975	0.0524	12.029	12.291	12.553
1994	10.4121	0.0363	43.3785	0.0363	10.412	10.593	10.775
1995	10.4695	0.0333	41.9744	0.0333	10.470	10.636	10.802
1996	10.5923	0.0210	40.5195	0.0210	10.592	10.698	10.803
1997	10.7516	0.0253	38.9935	0.0253	10.752	10.878	11.005
1998	9.7887	0.0094	37.2761	0.0094	9.789	9.836	9.882
1999	9.7779	0.0085	36.0430	0.0085	9.778	9.821	9.863
2000	9.9819	-0.0117	33.8159	-0.0117	9.982	9.924	9.865
2001	10.1295	-0.0278	31.8645	-0.0278	10.129	9.990	9.851
2002	10.0576	-0.0241	29.8124	-0.0241	10.058	9.937	9.817
2003	5.6765	0.0000	27.6941	0.0000	5.676	5.676	5.676
2004	5.0732	-0.0295	25.4277	-0.0295	5.073	4.926	4.778
2005	5.1787	-0.0481	23.0958	-0.0481	5.179	4.938	4.697
2006	5.2810	-0.0693	20.5434	-0.0693	5.281	4.935	4.588
2007	2.9778	-0.0464	17.4624	-0.0464	2.978	2.746	2.514
2008	3.0689	-0.0719	14.7251	-0.0719	3.069	2.710	2.350
2009	3.2045	-0.1157	11.8958	-0.1157	3.205	2.626	2.048
2010	0.6909	-0.0358	8.9894	-0.0358	0.691	0.512	0.332
2011	0.7795	-0.0814	6.0214	-0.0814	0.780	0.373	-0.034

1
**
** CALIMFAC V2.3 Nov 1 2006
**
** California Motor Vehicle Emissions Factor Model
**
** Scenario title: Targa -Stockton Terminal

```
**
** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations      Medium HD Trucks (T6)   With I/M
**
**                                Ht Sk    Evaporative Losses       Corrected
**
```

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	0.2901	0.0072	48.9147	0.0072	0.290	0.326	0.362
1968	0.2914	0.0069	48.9147	0.0069	0.291	0.326	0.360
1969	0.2934	0.0067	49.6356	0.0067	0.293	0.327	0.360
1970	0.2950	0.0064	49.5339	0.0064	0.295	0.327	0.359
1971	0.2955	0.0062	48.6777	0.0062	0.295	0.326	0.357
1972	0.2941	0.0060	48.6574	0.0060	0.294	0.324	0.354
1973	0.2945	0.0058	49.6688	0.0058	0.295	0.323	0.352
1974	0.2950	0.0054	48.1428	0.0054	0.295	0.322	0.349
1975	0.2918	0.0052	48.8560	0.0052	0.292	0.318	0.344
1976	0.2876	0.0051	49.3219	0.0051	0.288	0.313	0.338
1977	0.2714	0.0012	49.6588	0.0012	0.271	0.277	0.283
1978	0.2698	0.0009	49.1505	0.0009	0.270	0.274	0.278
1979	0.2705	0.0006	50.0193	0.0006	0.270	0.273	0.276
1980	0.2414	0.0004	49.5984	0.0004	0.241	0.243	0.245
1981	0.2421	0.0000	50.5554	0.0000	0.242	0.242	0.242
1982	0.2433	-0.0004	50.8105	-0.0004	0.243	0.241	0.239
1983	0.2415	-0.0008	50.9645	-0.0008	0.241	0.238	0.234
1984	0.2423	-0.0012	51.5306	-0.0012	0.242	0.236	0.230
1985	0.2446	-0.0017	50.9263	-0.0017	0.245	0.236	0.228
1986	0.2441	-0.0021	49.8076	-0.0021	0.244	0.233	0.223
1987	0.2426	-0.0027	49.1079	-0.0027	0.243	0.229	0.216
1988	0.2414	-0.0032	48.7708	-0.0032	0.241	0.225	0.209
1989	0.2382	-0.0036	47.7967	-0.0036	0.238	0.220	0.202
1990	0.2314	-0.0039	46.7680	-0.0039	0.231	0.212	0.192
1991	0.0133	0.0008	46.1451	0.0008	0.013	0.017	0.021
1992	0.0127	0.0007	45.1666	0.0007	0.013	0.016	0.020
1993	0.0154	0.0002	43.9975	0.0002	0.015	0.016	0.018
1994	0.0142	0.0002	43.3785	0.0002	0.014	0.015	0.016
1995	0.0055	0.0009	41.9744	0.0009	0.006	0.010	0.015
1996	0.0026	0.0010	40.5195	0.0010	0.003	0.008	0.012
1997	0.0006	0.0009	38.9935	0.0009	0.001	0.005	0.010
1998	0.0000	0.0007	37.2761	0.0007	0.000	0.003	0.007
1999	0.0000	0.0006	36.0430	0.0006	0.000	0.003	0.006
2000	0.0000	0.0006	33.8159	0.0006	0.000	0.003	0.006
2001	0.0000	0.0005	31.8645	0.0005	0.000	0.003	0.005
2002	0.0000	0.0005	29.8124	0.0005	0.000	0.003	0.005
2003	0.0000	0.0005	27.6941	0.0005	0.000	0.002	0.005
2004	0.0000	0.0003	25.4277	0.0003	0.000	0.002	0.003
2005	0.0005	0.0002	23.0958	0.0002	0.000	0.001	0.003
2006	0.0008	0.0001	20.5434	0.0001	0.001	0.001	0.002
2007	0.0010	0.0001	17.4624	0.0001	0.001	0.001	0.002
2008	0.0012	0.0000	14.7251	0.0000	0.001	0.001	0.002
2009	0.0013	0.0000	11.8958	0.0000	0.001	0.001	0.001
2010	0.0015	-0.0001	8.9894	-0.0001	0.001	0.001	0.001
2011	0.0017	-0.0002	6.0214	-0.0002	0.002	0.001	0.000

```
1
**
** CALIMFAC V2.3 Nov 1 2006
**
** California Motor Vehicle Emissions Factor Model
**
```

** Scenario title: Targa -Stockton Terminal
**
** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations Medium HD Trucks (T6) With I/M
**
** Rn Ls Evaporative Losses Corrected
**

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	5.1907	0.0338	48.9147	0.0338	5.191	5.360	5.529
1968	5.2367	0.0331	48.9147	0.0331	5.237	5.402	5.568
1969	5.2309	0.0327	49.6356	0.0327	5.231	5.395	5.558
1970	0.1293	0.0405	49.5339	0.0405	0.129	0.332	0.534
1971	0.1363	0.0402	48.6777	0.0402	0.136	0.337	0.538
1972	0.1514	0.0400	48.6574	0.0400	0.151	0.351	0.551
1973	0.1449	0.0396	49.6688	0.0396	0.145	0.343	0.541
1974	0.1562	0.0394	48.1428	0.0394	0.156	0.353	0.550
1975	0.1639	0.0393	48.8560	0.0393	0.164	0.361	0.557
1976	0.1691	0.0394	49.3219	0.0394	0.169	0.366	0.563
1977	0.1616	0.0395	49.6588	0.0395	0.162	0.359	0.557
1978	0.1756	0.0397	49.1505	0.0397	0.176	0.374	0.573
1979	0.1723	0.0399	50.0193	0.0399	0.172	0.372	0.571
1980	0.0000	0.0471	49.5984	0.0471	0.000	0.236	0.471
1981	0.0000	0.0436	50.5554	0.0436	0.000	0.218	0.436
1982	0.0000	0.0397	50.8105	0.0397	0.000	0.199	0.397
1983	0.0000	0.0363	50.9645	0.0363	0.000	0.182	0.363
1984	0.0000	0.0326	51.5306	0.0326	0.000	0.163	0.326
1985	0.0000	0.0290	50.9263	0.0290	0.000	0.145	0.290
1986	0.0000	0.0262	49.8076	0.0262	0.000	0.131	0.262
1987	0.0076	0.0235	49.1079	0.0235	0.008	0.125	0.243
1988	0.0368	0.0202	48.7708	0.0202	0.037	0.138	0.239
1989	0.0573	0.0175	47.7967	0.0175	0.057	0.145	0.233
1990	0.0740	0.0155	46.7680	0.0155	0.074	0.151	0.229
1991	0.1387	0.0106	46.1451	0.0106	0.139	0.192	0.245
1992	0.0000	0.0327	45.1666	0.0327	0.000	0.164	0.327
1993	0.0000	0.0348	43.9975	0.0348	0.000	0.174	0.348
1994	0.0000	0.0365	43.3785	0.0365	0.000	0.182	0.365
1995	0.0000	0.0337	41.9744	0.0337	0.000	0.169	0.337
1996	0.0000	0.0264	40.5195	0.0264	0.000	0.132	0.264
1997	0.0000	0.0196	38.9935	0.0196	0.000	0.098	0.196
1998	0.0000	0.0054	37.2761	0.0054	0.000	0.027	0.054
1999	0.0000	0.0050	36.0430	0.0050	0.000	0.025	0.050
2000	0.0000	0.0045	33.8159	0.0045	0.000	0.022	0.045
2001	0.0000	0.0038	31.8645	0.0038	0.000	0.019	0.038
2002	0.0000	0.0032	29.8124	0.0032	0.000	0.016	0.032
2003	0.0000	0.0028	27.6941	0.0028	0.000	0.014	0.028
2004	0.0000	0.0022	25.4277	0.0022	0.000	0.011	0.022
2005	0.0010	0.0015	23.0958	0.0015	0.001	0.009	0.016
2006	0.0047	0.0009	20.5434	0.0009	0.005	0.009	0.013
2007	0.0056	0.0007	17.4624	0.0007	0.006	0.009	0.013
2008	0.0065	0.0005	14.7251	0.0005	0.007	0.009	0.011
2009	0.0073	0.0002	11.8958	0.0002	0.007	0.008	0.010
2010	0.0081	-0.0001	8.9894	-0.0001	0.008	0.007	0.007
2011	0.0091	-0.0007	6.0214	-0.0007	0.009	0.005	0.002

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**
** CALIMFAC V2.3 Nov 1 2006
**
** California Motor Vehicle Emissions Factor Model

```
**
** Scenario title: Targa -Stockton Terminal
**
** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations      Medium HD Trucks (T6)   With I/M
**
**                                PRL     Evaporative Losses       Corrected
**
```

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	0.0039	0.0001	48.9147	0.0001	0.004	0.004	0.004
1968	0.0039	0.0001	48.9147	0.0001	0.004	0.004	0.004
1969	0.0039	0.0001	49.6356	0.0001	0.004	0.004	0.004
1970	0.0039	0.0001	49.5339	0.0001	0.004	0.004	0.004
1971	0.0039	0.0001	48.6777	0.0001	0.004	0.004	0.004
1972	0.0039	0.0001	48.6574	0.0001	0.004	0.004	0.004
1973	0.0039	0.0001	49.6688	0.0001	0.004	0.004	0.004
1974	0.0039	0.0001	48.1428	0.0001	0.004	0.004	0.004
1975	0.0039	0.0001	48.8560	0.0001	0.004	0.004	0.004
1976	0.0039	0.0001	49.3219	0.0001	0.004	0.004	0.004
1977	0.0039	0.0001	49.6588	0.0001	0.004	0.004	0.004
1978	0.0040	0.0001	49.1505	0.0001	0.004	0.004	0.004
1979	0.0040	0.0001	50.0193	0.0001	0.004	0.004	0.004
1980	0.0022	0.0000	49.5984	0.0000	0.002	0.002	0.003
1981	0.0022	0.0000	50.5554	0.0000	0.002	0.002	0.003
1982	0.0022	0.0000	50.8105	0.0000	0.002	0.002	0.003
1983	0.0022	0.0000	50.9645	0.0000	0.002	0.002	0.003
1984	0.0023	0.0000	51.5306	0.0000	0.002	0.002	0.003
1985	0.0023	0.0000	50.9263	0.0000	0.002	0.002	0.003
1986	0.0024	0.0000	49.8076	0.0000	0.002	0.003	0.003
1987	0.0024	0.0000	49.1079	0.0000	0.002	0.003	0.003
1988	0.0025	0.0000	48.7708	0.0000	0.002	0.003	0.003
1989	0.0025	0.0000	47.7967	0.0000	0.003	0.003	0.003
1990	0.0026	0.0000	46.7680	0.0000	0.003	0.003	0.003
1991	0.0009	0.0000	46.1451	0.0000	0.001	0.001	0.001
1992	0.0009	0.0000	45.1666	0.0000	0.001	0.001	0.001
1993	0.0010	0.0000	43.9975	0.0000	0.001	0.001	0.001
1994	0.0011	0.0000	43.3785	0.0000	0.001	0.001	0.001
1995	0.0005	0.0000	41.9744	0.0000	0.000	0.001	0.001
1996	0.0004	0.0000	40.5195	0.0000	0.000	0.000	0.001
1997	0.0003	0.0000	38.9935	0.0000	0.000	0.000	0.000
1998	0.0001	0.0000	37.2761	0.0000	0.000	0.000	0.000
1999	0.0001	0.0000	36.0430	0.0000	0.000	0.000	0.000
2000	0.0001	0.0000	33.8159	0.0000	0.000	0.000	0.000
2001	0.0001	0.0000	31.8645	0.0000	0.000	0.000	0.000
2002	0.0001	0.0000	29.8124	0.0000	0.000	0.000	0.000
2003	0.0001	0.0000	27.6941	0.0000	0.000	0.000	0.000
2004	0.0000	0.0000	25.4277	0.0000	0.000	0.000	0.000
2005	0.0001	0.0000	23.0958	0.0000	0.000	0.000	0.000
2006	0.0001	0.0000	20.5434	0.0000	0.000	0.000	0.000
2007	0.0001	0.0000	17.4624	0.0000	0.000	0.000	0.000
2008	0.0001	0.0000	14.7251	0.0000	0.000	0.000	0.000
2009	0.0001	0.0000	11.8958	0.0000	0.000	0.000	0.000
2010	0.0001	0.0000	8.9894	0.0000	0.000	0.000	0.000
2011	0.0001	0.0000	6.0214	0.0000	0.000	0.000	0.000

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** CALIMFAC V2.3 Nov 1 2006
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** California Motor Vehicle Emissions Factor Model
**
** Scenario title: Targa -Stockton Terminal
**
** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations Medium HD Trucks (T6) With I/M
**
** MDRL Evaporative Losses Corrected
**

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	0.0001	0.0000	48.9147	0.0000	0.000	0.000	0.000
1968	0.0001	0.0000	48.9147	0.0000	0.000	0.000	0.000
1969	0.0001	0.0000	49.6356	0.0000	0.000	0.000	0.000
1970	0.0001	0.0000	49.5339	0.0000	0.000	0.000	0.000
1971	0.0001	0.0000	48.6777	0.0000	0.000	0.000	0.000
1972	0.0001	0.0000	48.6574	0.0000	0.000	0.000	0.000
1973	0.0001	0.0000	49.6688	0.0000	0.000	0.000	0.000
1974	0.0001	0.0000	48.1428	0.0000	0.000	0.000	0.000
1975	0.0001	0.0000	48.8560	0.0000	0.000	0.000	0.000
1976	0.0001	0.0000	49.3219	0.0000	0.000	0.000	0.000
1977	0.0001	0.0000	49.6588	0.0000	0.000	0.000	0.000
1978	0.0001	0.0000	49.1505	0.0000	0.000	0.000	0.000
1979	0.0001	0.0000	50.0193	0.0000	0.000	0.000	0.000
1980	0.0001	0.0000	49.5984	0.0000	0.000	0.000	0.000
1981	0.0001	0.0000	50.5554	0.0000	0.000	0.000	0.000
1982	0.0001	0.0000	50.8105	0.0000	0.000	0.000	0.000
1983	0.0001	0.0000	50.9645	0.0000	0.000	0.000	0.000
1984	0.0001	0.0000	51.5306	0.0000	0.000	0.000	0.000
1985	0.0001	0.0000	50.9263	0.0000	0.000	0.000	0.000
1986	0.0001	0.0000	49.8076	0.0000	0.000	0.000	0.000
1987	0.0001	0.0000	49.1079	0.0000	0.000	0.000	0.000
1988	0.0001	0.0000	48.7708	0.0000	0.000	0.000	0.000
1989	0.0001	0.0000	47.7967	0.0000	0.000	0.000	0.000
1990	0.0001	0.0000	46.7680	0.0000	0.000	0.000	0.000
1991	0.0000	0.0000	46.1451	0.0000	0.000	0.000	0.000
1992	0.0001	0.0000	45.1666	0.0000	0.000	0.000	0.000
1993	0.0001	0.0000	43.9975	0.0000	0.000	0.000	0.000
1994	0.0001	0.0000	43.3785	0.0000	0.000	0.000	0.000
1995	0.0000	0.0000	41.9744	0.0000	0.000	0.000	0.000
1996	0.0000	0.0000	40.5195	0.0000	0.000	0.000	0.000
1997	0.0000	0.0000	38.9935	0.0000	0.000	0.000	0.000
1998	0.0000	0.0000	37.2761	0.0000	0.000	0.000	0.000
1999	0.0000	0.0000	36.0430	0.0000	0.000	0.000	0.000
2000	0.0000	0.0000	33.8159	0.0000	0.000	0.000	0.000
2001	0.0000	0.0000	31.8645	0.0000	0.000	0.000	0.000
2002	0.0000	0.0000	29.8124	0.0000	0.000	0.000	0.000
2003	0.0000	0.0000	27.6941	0.0000	0.000	0.000	0.000
2004	0.0000	0.0000	25.4277	0.0000	0.000	0.000	0.000
2005	0.0000	0.0000	23.0958	0.0000	0.000	0.000	0.000
2006	0.0000	0.0000	20.5434	0.0000	0.000	0.000	0.000
2007	0.0000	0.0000	17.4624	0.0000	0.000	0.000	0.000
2008	0.0000	0.0000	14.7251	0.0000	0.000	0.000	0.000
2009	0.0000	0.0000	11.8958	0.0000	0.000	0.000	0.000
2010	0.0000	0.0000	8.9894	0.0000	0.000	0.000	0.000
2011	0.0000	0.0000	6.0214	0.0000	0.000	0.000	0.000

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** CALIMFAC V2.3 Nov 1 2006

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**
** California Motor Vehicle Emissions Factor Model
**
** Scenario title: Targa -Stockton Terminal
**
** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations      Medium HD Trucks (T6)   With I/M
**
**                                PDI     Evaporative Losses       Corrected
**
```

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	0.0112	0.0003	48.9147	0.0003	0.011	0.013	0.014
1968	0.0112	0.0003	48.9147	0.0003	0.011	0.013	0.014
1969	0.0112	0.0003	49.6356	0.0003	0.011	0.013	0.014
1970	0.0113	0.0003	49.5339	0.0003	0.011	0.013	0.014
1971	0.0113	0.0003	48.6777	0.0003	0.011	0.013	0.014
1972	0.0113	0.0003	48.6574	0.0003	0.011	0.013	0.014
1973	0.0113	0.0003	49.6688	0.0003	0.011	0.013	0.014
1974	0.0115	0.0002	48.1428	0.0002	0.012	0.013	0.014
1975	0.0114	0.0003	48.8560	0.0003	0.011	0.013	0.014
1976	0.0117	0.0002	49.3219	0.0002	0.012	0.013	0.014
1977	0.0115	0.0002	49.6588	0.0002	0.012	0.013	0.014
1978	0.0118	0.0002	49.1505	0.0002	0.012	0.013	0.014
1979	0.0119	0.0002	50.0193	0.0002	0.012	0.013	0.014
1980	0.0087	0.0002	49.5984	0.0002	0.009	0.010	0.011
1981	0.0087	0.0002	50.5554	0.0002	0.009	0.010	0.011
1982	0.0089	0.0002	50.8105	0.0002	0.009	0.010	0.011
1983	0.0090	0.0002	50.9645	0.0002	0.009	0.010	0.011
1984	0.0092	0.0002	51.5306	0.0002	0.009	0.010	0.011
1985	0.0094	0.0002	50.9263	0.0002	0.009	0.010	0.011
1986	0.0096	0.0001	49.8076	0.0001	0.010	0.010	0.011
1987	0.0098	0.0001	49.1079	0.0001	0.010	0.010	0.011
1988	0.0099	0.0001	48.7708	0.0001	0.010	0.010	0.011
1989	0.0101	0.0001	47.7967	0.0001	0.010	0.011	0.011
1990	0.0101	0.0001	46.7680	0.0001	0.010	0.011	0.011
1991	0.0047	0.0001	46.1451	0.0001	0.005	0.005	0.005
1992	0.0050	0.0001	45.1666	0.0001	0.005	0.005	0.005
1993	0.0049	0.0001	43.9975	0.0001	0.005	0.005	0.006
1994	0.0055	0.0000	43.3785	0.0000	0.005	0.005	0.005
1995	0.0032	0.0001	41.9744	0.0001	0.003	0.004	0.004
1996	0.0025	0.0001	40.5195	0.0001	0.002	0.003	0.003
1997	0.0018	0.0001	38.9935	0.0001	0.002	0.002	0.003
1998	0.0001	0.0000	37.2761	0.0000	0.000	0.000	0.000
1999	0.0001	0.0000	36.0430	0.0000	0.000	0.000	0.000
2000	0.0001	0.0000	33.8159	0.0000	0.000	0.000	0.000
2001	0.0002	0.0000	31.8645	0.0000	0.000	0.000	0.000
2002	0.0002	0.0000	29.8124	0.0000	0.000	0.000	0.000
2003	0.0002	0.0000	27.6941	0.0000	0.000	0.000	0.000
2004	0.0001	0.0000	25.4277	0.0000	0.000	0.000	0.000
2005	0.0001	0.0000	23.0958	0.0000	0.000	0.000	0.000
2006	0.0002	0.0000	20.5434	0.0000	0.000	0.000	0.000
2007	0.0002	0.0000	17.4624	0.0000	0.000	0.000	0.000
2008	0.0002	0.0000	14.7251	0.0000	0.000	0.000	0.000
2009	0.0002	0.0000	11.8958	0.0000	0.000	0.000	0.000
2010	0.0003	0.0000	8.9894	0.0000	0.000	0.000	0.000
2011	0.0003	0.0000	6.0214	0.0000	0.000	0.000	0.000

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** CALIMFAC V2.3 Nov 1 2006
**
** California Motor Vehicle Emissions Factor Model
**
** Scenario title: Targa -Stockton Terminal
**
** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations      Medium HD Trucks (T6)   With I/M
**
**                                MDDI    Evaporative Losses       Corrected
**
```

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	0.0001	0.0000	48.9147	0.0000	0.000	0.000	0.000
1968	0.0001	0.0000	48.9147	0.0000	0.000	0.000	0.000
1969	0.0001	0.0000	49.6356	0.0000	0.000	0.000	0.000
1970	0.0001	0.0000	49.5339	0.0000	0.000	0.000	0.000
1971	0.0001	0.0000	48.6777	0.0000	0.000	0.000	0.000
1972	0.0001	0.0000	48.6574	0.0000	0.000	0.000	0.000
1973	0.0001	0.0000	49.6688	0.0000	0.000	0.000	0.000
1974	0.0002	0.0000	48.1428	0.0000	0.000	0.000	0.000
1975	0.0002	0.0000	48.8560	0.0000	0.000	0.000	0.000
1976	0.0002	0.0000	49.3219	0.0000	0.000	0.000	0.000
1977	0.0002	0.0000	49.6588	0.0000	0.000	0.000	0.000
1978	0.0002	0.0000	49.1505	0.0000	0.000	0.000	0.000
1979	0.0002	0.0000	50.0193	0.0000	0.000	0.000	0.000
1980	0.0001	0.0000	49.5984	0.0000	0.000	0.000	0.000
1981	0.0001	0.0000	50.5554	0.0000	0.000	0.000	0.000
1982	0.0001	0.0000	50.8105	0.0000	0.000	0.000	0.000
1983	0.0001	0.0000	50.9645	0.0000	0.000	0.000	0.000
1984	0.0001	0.0000	51.5306	0.0000	0.000	0.000	0.000
1985	0.0001	0.0000	50.9263	0.0000	0.000	0.000	0.000
1986	0.0001	0.0000	49.8076	0.0000	0.000	0.000	0.000
1987	0.0001	0.0000	49.1079	0.0000	0.000	0.000	0.000
1988	0.0001	0.0000	48.7708	0.0000	0.000	0.000	0.000
1989	0.0001	0.0000	47.7967	0.0000	0.000	0.000	0.000
1990	0.0001	0.0000	46.7680	0.0000	0.000	0.000	0.000
1991	0.0001	0.0000	46.1451	0.0000	0.000	0.000	0.000
1992	0.0001	0.0000	45.1666	0.0000	0.000	0.000	0.000
1993	0.0001	0.0000	43.9975	0.0000	0.000	0.000	0.000
1994	0.0001	0.0000	43.3785	0.0000	0.000	0.000	0.000
1995	0.0001	0.0000	41.9744	0.0000	0.000	0.000	0.000
1996	0.0001	0.0000	40.5195	0.0000	0.000	0.000	0.000
1997	0.0000	0.0000	38.9935	0.0000	0.000	0.000	0.000
1998	0.0000	0.0000	37.2761	0.0000	0.000	0.000	0.000
1999	0.0000	0.0000	36.0430	0.0000	0.000	0.000	0.000
2000	0.0000	0.0000	33.8159	0.0000	0.000	0.000	0.000
2001	0.0000	0.0000	31.8645	0.0000	0.000	0.000	0.000
2002	0.0000	0.0000	29.8124	0.0000	0.000	0.000	0.000
2003	0.0000	0.0000	27.6941	0.0000	0.000	0.000	0.000
2004	0.0000	0.0000	25.4277	0.0000	0.000	0.000	0.000
2005	0.0000	0.0000	23.0958	0.0000	0.000	0.000	0.000
2006	0.0000	0.0000	20.5434	0.0000	0.000	0.000	0.000
2007	0.0000	0.0000	17.4624	0.0000	0.000	0.000	0.000
2008	0.0000	0.0000	14.7251	0.0000	0.000	0.000	0.000
2009	0.0000	0.0000	11.8958	0.0000	0.000	0.000	0.000
2010	0.0000	0.0000	8.9894	0.0000	0.000	0.000	0.000
2011	0.0000	0.0000	6.0214	0.0000	0.000	0.000	0.000

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**
** CALIMFAC V2.3 Nov 1 2006
**
** California Motor Vehicle Emissions Factor Model
**
** Scenario title: Targa -Stockton Terminal
**
** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations      Medium HD Trucks (T6)   With I/M
**
**                                FTP COMP  Particulates            Corrected
**
```

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	0.1395	0.0017	48.9147	0.0017	0.140	0.148	0.157
1968	0.1700	0.0021	48.9147	0.0021	0.170	0.181	0.191
1969	0.1619	0.0019	49.6356	0.0019	0.162	0.172	0.181
1970	0.1654	0.0019	49.5339	0.0019	0.165	0.175	0.185
1971	0.1714	0.0019	48.6777	0.0019	0.171	0.181	0.191
1972	0.1635	0.0018	48.6574	0.0018	0.163	0.172	0.181
1973	0.1617	0.0016	49.6688	0.0016	0.162	0.170	0.178
1974	0.1846	0.0018	48.1428	0.0018	0.185	0.193	0.202
1975	0.1855	0.0017	48.8560	0.0017	0.185	0.194	0.202
1976	0.1887	0.0016	49.3219	0.0016	0.189	0.197	0.205
1977	0.1890	0.0020	49.6588	0.0020	0.189	0.199	0.209
1978	0.2600	0.0023	49.1505	0.0023	0.260	0.271	0.283
1979	0.2924	0.0023	50.0193	0.0023	0.292	0.304	0.315
1980	0.3503	0.0023	49.5984	0.0023	0.350	0.362	0.373
1981	0.4525	0.0025	50.5554	0.0025	0.452	0.465	0.477
1982	0.4618	0.0021	50.8105	0.0021	0.462	0.472	0.483
1983	0.4486	0.0017	50.9645	0.0017	0.449	0.457	0.465
1984	0.4751	0.0031	51.5306	0.0031	0.475	0.491	0.506
1985	0.4750	0.0028	50.9263	0.0028	0.475	0.489	0.503
1986	0.4963	0.0028	49.8076	0.0028	0.496	0.510	0.524
1987	0.3891	0.0027	49.1079	0.0027	0.389	0.403	0.416
1988	0.4020	0.0028	48.7708	0.0028	0.402	0.416	0.430
1989	0.3936	0.0029	47.7967	0.0029	0.394	0.408	0.423
1990	0.3930	0.0032	46.7680	0.0032	0.393	0.409	0.425
1991	0.2446	0.0062	46.1451	0.0062	0.245	0.275	0.306
1992	0.2333	0.0068	45.1666	0.0068	0.233	0.267	0.301
1993	0.2195	0.0077	43.9975	0.0077	0.219	0.258	0.296
1994	0.1239	0.0068	43.3785	0.0068	0.124	0.158	0.191
1995	0.1263	0.0066	41.9744	0.0066	0.126	0.159	0.193
1996	0.1317	0.0061	40.5195	0.0061	0.132	0.162	0.193
1997	0.1328	0.0064	38.9935	0.0064	0.133	0.165	0.197
1998	0.1134	0.0040	37.2761	0.0040	0.113	0.134	0.154
1999	0.1133	0.0040	36.0430	0.0040	0.113	0.133	0.153
2000	0.1181	0.0035	33.8159	0.0035	0.118	0.136	0.153
2001	0.1214	0.0031	31.8645	0.0031	0.121	0.137	0.152
2002	0.1192	0.0031	29.8124	0.0031	0.119	0.135	0.150
2003	0.1366	0.0021	27.6941	0.0021	0.137	0.147	0.158
2004	0.1414	0.0014	25.4277	0.0014	0.141	0.149	0.156
2005	0.1440	0.0008	23.0958	0.0008	0.144	0.148	0.152
2006	0.1457	0.0002	20.5434	0.0002	0.146	0.147	0.148
2007	0.0846	0.0010	17.4624	0.0010	0.085	0.090	0.095
2008	0.0874	0.0001	14.7251	0.0001	0.087	0.088	0.088
2009	0.0913	-0.0014	11.8958	-0.0014	0.091	0.084	0.078
2010	0.0294	0.0001	8.9894	0.0001	0.029	0.030	0.030
2011	0.0322	-0.0022	6.0214	-0.0022	0.032	0.021	0.010

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**
** CALIMFAC V2.3 Nov 1 2006
**
** California Motor Vehicle Emissions Factor Model
**
** Scenario title: Targa -Stockton Terminal
**
** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations      Medium HD Trucks (T6)   With I/M
**
**                                FTP COMP  Lead                  Corrected
**
```

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	0.0000	0.0000	48.9147	0.0000	0.000	0.000	0.000
1968	0.0000	0.0000	48.9147	0.0000	0.000	0.000	0.000
1969	0.0000	0.0000	49.6356	0.0000	0.000	0.000	0.000
1970	0.0000	0.0000	49.5339	0.0000	0.000	0.000	0.000
1971	0.0000	0.0000	48.6777	0.0000	0.000	0.000	0.000
1972	0.0000	0.0000	48.6574	0.0000	0.000	0.000	0.000
1973	0.0000	0.0000	49.6688	0.0000	0.000	0.000	0.000
1974	0.0000	0.0000	48.1428	0.0000	0.000	0.000	0.000
1975	0.0000	0.0000	48.8560	0.0000	0.000	0.000	0.000
1976	0.0000	0.0000	49.3219	0.0000	0.000	0.000	0.000
1977	0.0000	0.0000	49.6588	0.0000	0.000	0.000	0.000
1978	0.0000	0.0000	49.1505	0.0000	0.000	0.000	0.000
1979	0.0000	0.0000	50.0193	0.0000	0.000	0.000	0.000
1980	0.0000	0.0000	49.5984	0.0000	0.000	0.000	0.000
1981	0.0000	0.0000	50.5554	0.0000	0.000	0.000	0.000
1982	0.0000	0.0000	50.8105	0.0000	0.000	0.000	0.000
1983	0.0000	0.0000	50.9645	0.0000	0.000	0.000	0.000
1984	0.0000	0.0000	51.5306	0.0000	0.000	0.000	0.000
1985	0.0000	0.0000	50.9263	0.0000	0.000	0.000	0.000
1986	0.0000	0.0000	49.8076	0.0000	0.000	0.000	0.000
1987	0.0000	0.0000	49.1079	0.0000	0.000	0.000	0.000
1988	0.0000	0.0000	48.7708	0.0000	0.000	0.000	0.000
1989	0.0000	0.0000	47.7967	0.0000	0.000	0.000	0.000
1990	0.0000	0.0000	46.7680	0.0000	0.000	0.000	0.000
1991	0.0000	0.0000	46.1451	0.0000	0.000	0.000	0.000
1992	0.0000	0.0000	45.1666	0.0000	0.000	0.000	0.000
1993	0.0000	0.0000	43.9975	0.0000	0.000	0.000	0.000
1994	0.0000	0.0000	43.3785	0.0000	0.000	0.000	0.000
1995	0.0000	0.0000	41.9744	0.0000	0.000	0.000	0.000
1996	0.0000	0.0000	40.5195	0.0000	0.000	0.000	0.000
1997	0.0000	0.0000	38.9935	0.0000	0.000	0.000	0.000
1998	0.0000	0.0000	37.2761	0.0000	0.000	0.000	0.000
1999	0.0000	0.0000	36.0430	0.0000	0.000	0.000	0.000
2000	0.0000	0.0000	33.8159	0.0000	0.000	0.000	0.000
2001	0.0000	0.0000	31.8645	0.0000	0.000	0.000	0.000
2002	0.0000	0.0000	29.8124	0.0000	0.000	0.000	0.000
2003	0.0000	0.0000	27.6941	0.0000	0.000	0.000	0.000
2004	0.0000	0.0000	25.4277	0.0000	0.000	0.000	0.000
2005	0.0000	0.0000	23.0958	0.0000	0.000	0.000	0.000
2006	0.0000	0.0000	20.5434	0.0000	0.000	0.000	0.000
2007	0.0000	0.0000	17.4624	0.0000	0.000	0.000	0.000
2008	0.0000	0.0000	14.7251	0.0000	0.000	0.000	0.000
2009	0.0000	0.0000	11.8958	0.0000	0.000	0.000	0.000
2010	0.0000	0.0000	8.9894	0.0000	0.000	0.000	0.000

2011 0.0000 0.0000 6.0214 0.0000 0.000 0.000 0.000

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**
** CALIMFAC V2.3 Nov 1 2006
**
** California Motor Vehicle Emissions Factor Model
**
** Scenario title: Targa -Stockton Terminal
**
** Output file: C:\Users\jryan\Documents\TARGA\Targa2(IM).out
**
** Date of this run: 2011/11/04 10:57:13
**
** Basic Emission Factor Equations      Medium HD Trucks (T6)   With I/M
**
**                                FTP COMP  Carbon Dioxide          Corrected
**
```

Model Year	ZML	DET1	FLEX PT	DET2	0K	50K	100K
1967	813.1483	0.0000	48.9147	0.0000	813.148	813.148	813.148
1968	845.5071	-0.0290	48.9147	-0.0290	845.507	845.362	845.217
1969	836.2009	-0.0278	49.6356	-0.0278	836.201	836.062	835.923
1970	839.2812	-0.0376	49.5339	-0.0376	839.281	839.093	838.905
1971	844.6471	-0.0395	48.6777	-0.0395	844.647	844.450	844.252
1972	834.6430	-0.0338	48.6574	-0.0338	834.643	834.474	834.305
1973	831.7720	-0.0466	49.6688	-0.0466	831.772	831.539	831.306
1974	854.0447	-0.0585	48.1428	-0.0585	854.045	853.752	853.460
1975	853.5891	-0.0568	48.8560	-0.0568	853.589	853.305	853.021
1976	855.4489	-0.0607	49.3219	-0.0607	855.449	855.146	854.842
1977	869.4717	-0.0475	49.6588	-0.0475	869.472	869.234	868.997
1978	936.9639	-0.0663	49.1505	-0.0663	936.964	936.632	936.301
1979	966.8016	-0.0883	50.0193	-0.0883	966.802	966.360	965.918
1980	1021.2302	-0.1337	49.5984	-0.1337	1021.230	1020.561	1019.893
1981	1118.1460	-0.1369	50.5554	-0.1369	1118.146	1117.462	1116.777
1982	1125.4910	-0.1908	50.8105	-0.1908	1125.491	1124.537	1123.583
1983	1111.9918	-0.1503	50.9645	-0.1503	1111.992	1111.240	1110.488
1984	1163.8425	-0.1787	51.5306	-0.1787	1163.843	1162.949	1162.056
1985	1166.5662	-0.3464	50.9263	-0.3464	1166.566	1164.834	1163.102
1986	1193.2841	-0.4060	49.8076	-0.4060	1193.284	1191.254	1189.224
1987	1235.3248	-0.4352	49.1079	-0.4352	1235.325	1233.149	1230.973
1988	1267.9352	-0.5787	48.7708	-0.5787	1267.935	1265.042	1262.148
1989	1273.5824	-0.7264	47.7967	-0.7264	1273.582	1269.950	1266.318
1990	1296.6808	-0.9279	46.7680	-0.9279	1296.681	1292.041	1287.402
1991	1311.1333	-1.4339	46.1451	-1.4339	1311.133	1303.964	1296.794
1992	1326.3459	-1.3699	45.1666	-1.3699	1326.346	1319.496	1312.647
1993	1345.7899	-1.2466	43.9975	-1.2466	1345.790	1339.557	1333.324
1994	1347.3988	-1.5692	43.3785	-1.5692	1347.399	1339.553	1331.707
1995	1355.7555	-1.9843	41.9744	-1.9843	1355.755	1345.834	1335.913
1996	1371.8052	-3.4415	40.5195	-3.4415	1371.805	1354.598	1337.391
1997	1382.7935	-2.9952	38.9935	-2.9952	1382.793	1367.818	1352.842
1998	1384.9491	-4.0369	37.2761	-4.0369	1384.949	1364.765	1344.580
1999	1385.5632	-4.2085	36.0430	-4.2085	1385.563	1364.521	1343.478
2000	1412.3193	-6.8086	33.8159	-6.8086	1412.319	1378.276	1344.233
2001	1432.9514	-9.1067	31.8645	-9.1067	1432.951	1387.418	1341.885
2002	1426.5403	-9.0189	29.8124	-9.0189	1426.540	1381.446	1336.351
2003	1412.3391	-8.1113	27.6941	-8.1113	1412.339	1371.782	1331.226
2004	1442.9327	-12.1661	25.4277	-12.1661	1442.933	1382.102	1321.271
2005	1473.5159	-16.9493	23.0958	-16.9493	1473.516	1388.769	1304.023
2006	1505.0138	-22.8437	20.5434	-22.8437	1505.014	1390.795	1276.577
2007	1527.1802	-29.2958	17.4624	-29.2958	1527.180	1380.701	1234.222
2008	1574.5399	-41.7444	14.7251	-41.7444	1574.540	1365.818	1157.096
2009	1645.1208	-63.5611	11.8958	-63.5611	1645.121	1327.315	1009.510

```
2010 1766.9713-108.7932   8.9894********  1766.971 1223.005  679.040
2011 2004.3842-222.0706   6.0214********  2004.384  894.031 -216.322
```

Ocean Going Vessel Emissions
Calculation Spreadsheet

Emissions Estimations for Proposed Project's Ocean Going Vessels

Calls/Year	24
Length of travel in SJVAPCD (miles):	30
RSZ surrounding Port of Stockton (nautical miles)	86.9
Cruise Speed Tankers (knots)	14.8
RSZ speed Port of Stockton (knots)	6
Maneuvering Speed Port of Stockton 9 (knots)	5.8
RSZ speed Port of Stockton (mph)	6.9
Maneuvering Speed Port of Stockton 9 (mph)	6.67
Time Spent RSZ in Port of Stockton (hours)	8.70
AVG Manuevering Time in California (hours)	2
Load Factor propulsion, rsz	0.06
Load Factor auxiliary, rsz	0.28
Load Factor propulsion, manuever	0.08
Load Factor auxiliary, maneuver	0.33
Average Propulsion Engine Power in Tanker (kw)	9400
Tanker Auxiliary Engine Power (kw)	1985

Low Load Adjustment Factors	
Pollutant	**Adjustment Factor**
Nox	1.11
PM	1.19
CO	1.52
CO2	1.14
HC	1.6

	Emission Factors (g/kw*hr)		Emissions by Engine and Mode (tons/call)				Overall Results	
Pollutant	Main Engine	Auxiliary	$Propulsion_{RSZ}$	$Auxiliary_{RSZ}$	$Propulsion_{Manuever}$	$Auxiliary_{Manuever}$	tons/call	tons/year
NOX	17	13.900	0.094	0.074	0.022	0.020	0.210	5.032
PM10	0.45	0.490	0.003	0.003	0.001	0.001	0.007	0.158
CO	1.4	1.100	0.011	0.006	0.002	0.002	0.020	0.492
CO2	588.79	690.710	3.344	3.676	0.769	0.997	8.786	210.867
HC	0.6	0.400	0.005	0.002	0.001	0.001	0.009	0.206

Assumptions
All Tankers Called Have Slow Speed Diesel (SSD) Engines
Assume Only MDO is Used as fuel (conservative estimate)
Assume Berthed Emissions are Negligble Since there will be Alternative Marine Power (AMP) installed at the Docks
Assume that tankers will travel at 6 knots in the Port of Stockton

note: RSZ = Reduced Speed Zone

Sources: EPA, CARB

Employee Vehicle Emissions

URBEMIS 2007 v.9.2.4

Detailed Summary Output File

10/14/2011 01:20:04 PM

Urbemis 2007 Version 9.2.4

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\EFitz\Desktop\Concord\Targa Stockton Terminal\Employee Vehicle Emissions.urb924

Project Name: Employee Vehicle Emissons

Project Location: San Joaquin Valley APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
General light industry	0.11	0.16	1.04	0.00	0.12	0.03	144.86
TOTALS (tons/year, unmitigated)	0.11	0.16	1.04	0.00	0.12	0.03	144.86

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2017 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
General light industry		3.02	employees	30.00	90.60	763.30
					90.60	763.30

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	42.4	0.2	99.8	0.0
Light Truck < 3750 lbs	12.1	0.0	95.9	4.1
Light Truck 3751-5750 lbs	21.2	0.0	100.0	0.0

Med Truck 5751-8500 lbs	11.9	0.8	99.2	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.4	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	1.3	0.0	15.4	84.6
Heavy-Heavy Truck 33,001-60,000 lbs	2.7	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.9	43.6	56.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General light industry				50.0	25.0	25.0

Operational Changes to Defaults

Appendix G – Traffic Impact Modeling Technical Data

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	42	9	15	138	33	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	10	16	150	36	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			55		228	46
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			55		228	46
tC, single (s)			4.8		6.7	7.0
tC, 2 stage (s)						
tF (s)			2.8		3.8	4.0
p0 queue free %			99		95	98
cM capacity (veh/h)			1207		687	850

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	46	10	16	150	52
Volume Left	0	0	16	0	36
Volume Right	0	10	0	0	16
cSH	1700	1700	1207	1700	731
Volume to Capacity	0.03	0.01	0.01	0.09	0.07
Queue Length 95th (ft)	0	0	1	0	6
Control Delay (s)	0.0	0.0	8.0	0.0	10.3
Lane LOS			A		B
Approach Delay (s)	0.0		0.8		10.3
Approach LOS					B

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	42	18	44	138	33	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	20	48	150	36	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			65		291	46
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			65		291	46
tC, single (s)			4.8		6.7	7.0
tC, 2 stage (s)						
tF (s)			2.8		3.8	4.0
p0 queue free %			96		94	98
cM capacity (veh/h)			1196		613	850

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	46	20	48	150	52
Volume Left	0	0	48	0	36
Volume Right	0	20	0	0	16
cSH	1700	1700	1196	1700	672
Volume to Capacity	0.03	0.01	0.04	0.09	0.08
Queue Length 95th (ft)	0	0	3	0	6
Control Delay (s)	0.0	0.0	8.1	0.0	10.8
Lane LOS			A		B
Approach Delay (s)	0.0		2.0		10.8
Approach LOS					B

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	19.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	42	13	28	138	33	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	14	30	150	36	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			60		257	46
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			60		257	46
tC, single (s)			4.8		6.7	7.0
tC, 2 stage (s)						
tF (s)			2.8		3.8	4.0
p0 queue free %			97		95	98
cM capacity (veh/h)			1202		653	850

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	46	14	30	150	52
Volume Left	0	0	30	0	36
Volume Right	0	14	0	0	16
cSH	1700	1700	1202	1700	704
Volume to Capacity	0.03	0.01	0.03	0.09	0.07
Queue Length 95th (ft)	0	0	2	0	6
Control Delay (s)	0.0	0.0	8.1	0.0	10.5
Lane LOS			A		B
Approach Delay (s)	0.0		1.4		10.5
Approach LOS					B

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	18.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	208	47	5	44	21	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	226	51	5	48	23	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			277		285	226
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			277		285	226
tC, single (s)			4.1		6.9	6.5
tC, 2 stage (s)						
tF (s)			2.2		3.9	3.6
p0 queue free %			100		96	98
cM capacity (veh/h)			1286		617	742

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	226	51	5	48	35
Volume Left	0	0	5	0	23
Volume Right	0	51	0	0	12
cSH	1700	1700	1286	1700	655
Volume to Capacity	0.13	0.03	0.00	0.03	0.05
Queue Length 95th (ft)	0	0	0	0	4
Control Delay (s)	0.0	0.0	7.8	0.0	10.8
Lane LOS			A		B
Approach Delay (s)	0.0		0.8		10.8
Approach LOS					B

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	20.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	208	47	5	44	30	40
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	226	51	5	48	33	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			277		285	226
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			277		285	226
tC, single (s)			4.1		6.9	6.5
tC, 2 stage (s)						
tF (s)			2.2		3.9	3.6
p0 queue free %			100		95	94
cM capacity (veh/h)			1286		617	742

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	226	51	5	48	76
Volume Left	0	0	5	0	33
Volume Right	0	51	0	0	43
cSH	1700	1700	1286	1700	683
Volume to Capacity	0.13	0.03	0.00	0.03	0.11
Queue Length 95th (ft)	0	0	0	0	9
Control Delay (s)	0.0	0.0	7.8	0.0	10.9
Lane LOS			A		B
Approach Delay (s)	0.0		0.8		10.9
Approach LOS					B

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	21.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	208	47	5	44	25	24
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	226	51	5	48	27	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			277		285	226
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			277		285	226
tC, single (s)			4.1		6.9	6.5
tC, 2 stage (s)						
tF (s)			2.2		3.9	3.6
p0 queue free %			100		96	96
cM capacity (veh/h)			1286		617	742

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	226	51	5	48	53
Volume Left	0	0	5	0	27
Volume Right	0	51	0	0	26
cSH	1700	1700	1286	1700	673
Volume to Capacity	0.13	0.03	0.00	0.03	0.08
Queue Length 95th (ft)	0	0	0	0	6
Control Delay (s)	0.0	0.0	7.8	0.0	10.8
Lane LOS			A		B
Approach Delay (s)	0.0		0.8		10.8
Approach LOS					B

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	20.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	19	77	23	28	2	231	73	28	0	22	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.90			1.00			0.99			0.98	
Flt Protected		1.00			0.98			0.97			1.00	
Satd. Flow (prot)		1359			1814			1592			1528	
Flt Permitted		0.99			0.85			0.78			1.00	
Satd. Flow (perm)		1350			1578			1278			1528	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	21	84	25	30	2	251	79	30	0	24	3
RTOR Reduction (vph)	0	70	0	0	2	0	0	5	0	0	1	0
Lane Group Flow (vph)	0	38	0	0	55	0	0	355	0	0	26	0
Heavy Vehicles (%)	25%	25%	25%	2%	2%	2%	14%	14%	14%	2%	25%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.0			10.0			40.0			40.0	
Effective Green, g (s)		10.0			10.0			40.0			40.0	
Actuated g/C Ratio		0.17			0.17			0.67			0.67	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		225			263			852			1019	
v/s Ratio Prot											0.02	
v/s Ratio Perm		0.03			c0.04			c0.28				
v/c Ratio		0.17			0.21			0.42			0.03	
Uniform Delay, d1		21.4			21.6			4.6			3.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.6			1.8			1.5			0.0	
Delay (s)		23.1			23.4			6.1			3.4	
Level of Service		C			C			A			A	
Approach Delay (s)		23.1			23.4			6.1			3.4	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	19	77	23	28	2	260	73	28	0	22	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.90			1.00			0.99			0.98	
Flt Protected		1.00			0.98			0.97			1.00	
Satd. Flow (prot)		1359			1814			1592			1528	
Flt Permitted		0.99			0.85			0.77			1.00	
Satd. Flow (perm)		1350			1578			1269			1528	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	21	84	25	30	2	283	79	30	0	24	3
RTOR Reduction (vph)	0	70	0	0	2	0	0	5	0	0	1	0
Lane Group Flow (vph)	0	38	0	0	55	0	0	387	0	0	26	0
Heavy Vehicles (%)	25%	25%	25%	2%	2%	2%	14%	14%	14%	2%	25%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.0			10.0			40.0			40.0	
Effective Green, g (s)		10.0			10.0			40.0			40.0	
Actuated g/C Ratio		0.17			0.17			0.67			0.67	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		225			263			846			1019	
v/s Ratio Prot											0.02	
v/s Ratio Perm		0.03			c0.04			c0.31				
v/c Ratio		0.17			0.21			0.46			0.03	
Uniform Delay, d1		21.4			21.6			4.8			3.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.6			1.8			1.8			0.0	
Delay (s)		23.1			23.4			6.6			3.4	
Level of Service		C			C			A			A	
Approach Delay (s)		23.1			23.4			6.6			3.4	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	19	77	23	28	2	244	73	28	0	22	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.90			1.00			0.99			0.98	
Flt Protected		1.00			0.98			0.97			1.00	
Satd. Flow (prot)		1359			1814			1592			1528	
Flt Permitted		0.99			0.85			0.77			1.00	
Satd. Flow (perm)		1350			1578			1274			1528	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	21	84	25	30	2	265	79	30	0	24	3
RTOR Reduction (vph)	0	70	0	0	2	0	0	5	0	0	1	0
Lane Group Flow (vph)	0	38	0	0	55	0	0	369	0	0	26	0
Heavy Vehicles (%)	25%	25%	25%	2%	2%	2%	14%	14%	14%	2%	25%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.0			10.0			40.0			40.0	
Effective Green, g (s)		10.0			10.0			40.0			40.0	
Actuated g/C Ratio		0.17			0.17			0.67			0.67	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		225			263			849			1019	
v/s Ratio Prot											0.02	
v/s Ratio Perm		0.03			c0.04			c0.29				
v/c Ratio		0.17			0.21			0.43			0.03	
Uniform Delay, d1		21.4			21.6			4.7			3.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.6			1.8			1.6			0.0	
Delay (s)		23.1			23.4			6.3			3.4	
Level of Service		C			C			A			A	
Approach Delay (s)		23.1			23.4			6.3			3.4	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	21	39	0	56	3	5	31	249	39	14	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.88			1.00	
Flt Protected		0.97			1.00			1.00			0.97	
Satd. Flow (prot)		1617			1851			1443			1715	
Flt Permitted		0.79			1.00			1.00			0.71	
Satd. Flow (perm)		1308			1851			1440			1267	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	88	23	42	0	61	3	5	34	271	42	15	1
RTOR Reduction (vph)	0	32	0	0	2	0	0	152	0	0	1	0
Lane Group Flow (vph)	0	122	0	0	62	0	0	158	0	0	57	0
Heavy Vehicles (%)	10%	10%	10%	2%	2%	2%	16%	16%	16%	2%	20%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.0			8.0			14.0			14.0	
Effective Green, g (s)		8.0			8.0			14.0			14.0	
Actuated g/C Ratio		0.25			0.25			0.44			0.44	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		327			463			630			554	
v/s Ratio Prot					0.03							
v/s Ratio Perm		c0.09						c0.11			0.05	
v/c Ratio		0.37			0.13			0.25			0.10	
Uniform Delay, d1		9.9			9.3			5.7			5.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.2			0.6			1.0			0.4	
Delay (s)		13.1			9.9			6.6			5.7	
Level of Service		B			A			A			A	
Approach Delay (s)		13.1			9.9			6.6			5.7	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	32.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	21	68	0	56	3	5	31	249	39	14	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.95			0.99			0.88			1.00	
Flt Protected		0.98			1.00			1.00			0.97	
Satd. Flow (prot)		1596			1851			1443			1715	
Flt Permitted		0.82			1.00			1.00			0.71	
Satd. Flow (perm)		1334			1851			1440			1267	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	88	23	74	0	61	3	5	34	271	42	15	1
RTOR Reduction (vph)	0	56	0	0	2	0	0	152	0	0	1	0
Lane Group Flow (vph)	0	130	0	0	62	0	0	158	0	0	57	0
Heavy Vehicles (%)	10%	10%	10%	2%	2%	2%	16%	16%	16%	2%	20%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.0			8.0			14.0			14.0	
Effective Green, g (s)		8.0			8.0			14.0			14.0	
Actuated g/C Ratio		0.25			0.25			0.44			0.44	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		334			463			630			554	
v/s Ratio Prot					0.03							
v/s Ratio Perm		c0.10						c0.11			0.05	
v/c Ratio		0.39			0.13			0.25			0.10	
Uniform Delay, d1		10.0			9.3			5.7			5.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.4			0.6			1.0			0.4	
Delay (s)		13.3			9.9			6.6			5.7	
Level of Service		B			A			A			A	
Approach Delay (s)		13.3			9.9			6.6			5.7	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	32.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	21	52	0	56	3	5	31	249	39	14	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.95			0.99			0.88			1.00	
Flt Protected		0.97			1.00			1.00			0.97	
Satd. Flow (prot)		1606			1851			1443			1715	
Flt Permitted		0.80			1.00			1.00			0.71	
Satd. Flow (perm)		1321			1851			1440			1267	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	88	23	57	0	61	3	5	34	271	42	15	1
RTOR Reduction (vph)	0	43	0	0	2	0	0	152	0	0	1	0
Lane Group Flow (vph)	0	125	0	0	62	0	0	158	0	0	57	0
Heavy Vehicles (%)	10%	10%	10%	2%	2%	2%	16%	16%	16%	2%	20%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.0			8.0			14.0			14.0	
Effective Green, g (s)		8.0			8.0			14.0			14.0	
Actuated g/C Ratio		0.25			0.25			0.44			0.44	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		330			463			630			554	
v/s Ratio Prot					0.03							
v/s Ratio Perm		c0.09						c0.11			0.05	
v/c Ratio		0.38			0.13			0.25			0.10	
Uniform Delay, d1		9.9			9.3			5.7			5.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.3			0.6			1.0			0.4	
Delay (s)		13.2			9.9			6.6			5.7	
Level of Service		B			A			A			A	
Approach Delay (s)		13.2			9.9			6.6			5.7	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM Average Control Delay	8.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	32.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	431	440	58	0	0	202
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	468	478	63	0	0	220
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			342			1050
pX, platoon unblocked						
vC, conflicting volume	283	63			63	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	283	63			63	
tC, single (s)	6.5	6.4			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.5			2.2	
p0 queue free %	33	49			100	
cM capacity (veh/h)	695	941			1553	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	468	478	63	220
Volume Left	468	0	0	0
Volume Right	0	478	0	0
cSH	695	941	1700	1700
Volume to Capacity	0.67	0.51	0.04	0.13
Queue Length 95th (ft)	131	74	0	0
Control Delay (s)	20.2	12.7	0.0	0.0
Lane LOS	C	B		
Approach Delay (s)	16.4		0.0	0.0
Approach LOS	C			

Intersection Summary			
Average Delay	12.6		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	437	469	58	0	0	202
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	475	510	63	0	0	220
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			342			1050
pX, platoon unblocked						
vC, conflicting volume	283	63			63	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	283	63			63	
tC, single (s)	6.5	6.4			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.5			2.2	
p0 queue free %	32	46			100	
cM capacity (veh/h)	695	941			1553	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	475	510	63	220
Volume Left	475	0	0	0
Volume Right	0	510	0	0
cSH	695	941	1700	1700
Volume to Capacity	0.68	0.54	0.04	0.13
Queue Length 95th (ft)	135	84	0	0
Control Delay (s)	20.6	13.3	0.0	0.0
Lane LOS	C	B		
Approach Delay (s)	16.8		0.0	0.0
Approach LOS	C			

Intersection Summary			
Average Delay	13.1		
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	434	453	58	0	0	202
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	472	492	63	0	0	220
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			342			1050
pX, platoon unblocked						
vC, conflicting volume	283	63			63	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	283	63			63	
tC, single (s)	6.5	6.4			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.5			2.2	
p0 queue free %	32	48			100	
cM capacity (veh/h)	695	941			1553	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	472	492	63	220
Volume Left	472	0	0	0
Volume Right	0	492	0	0
cSH	695	941	1700	1700
Volume to Capacity	0.68	0.52	0.04	0.13
Queue Length 95th (ft)	133	78	0	0
Control Delay (s)	20.4	13.0	0.0	0.0
Lane LOS	C	B		
Approach Delay (s)	16.6		0.0	0.0
Approach LOS	C			

Intersection Summary			
Average Delay	12.8		
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	275	255	52	0	0	311
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	299	277	57	0	0	338
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			342			1050
pX, platoon unblocked						
vC, conflicting volume	395	57			57	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	395	57			57	
tC, single (s)	6.5	6.4			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.5			2.2	
p0 queue free %	50	71			100	
cM capacity (veh/h)	601	951			1548	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	299	277	57	338
Volume Left	299	0	0	0
Volume Right	0	277	0	0
cSH	601	951	1700	1700
Volume to Capacity	0.50	0.29	0.03	0.20
Queue Length 95th (ft)	69	30	0	0
Control Delay (s)	16.8	10.3	0.0	0.0
Lane LOS	C	B		
Approach Delay (s)	13.7		0.0	0.0
Approach LOS	B			

Intersection Summary			
Average Delay	8.1		
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	275	255	52	0	0	340
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	299	277	57	0	0	370
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			342			1050
pX, platoon unblocked						
vC, conflicting volume	426	57			57	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	426	57			57	
tC, single (s)	6.5	6.4			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.5			2.2	
p0 queue free %	48	71			100	
cM capacity (veh/h)	576	951			1548	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	299	277	57	370
Volume Left	299	0	0	0
Volume Right	0	277	0	0
cSH	576	951	1700	1700
Volume to Capacity	0.52	0.29	0.03	0.22
Queue Length 95th (ft)	75	30	0	0
Control Delay (s)	17.8	10.3	0.0	0.0
Lane LOS	C	B		
Approach Delay (s)	14.2		0.0	0.0
Approach LOS	B			

Intersection Summary			
Average Delay	8.2		
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	275	255	52	0	0	324
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	299	277	57	0	0	352
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			342			1050
pX, platoon unblocked						
vC, conflicting volume	409	57			57	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	409	57			57	
tC, single (s)	6.5	6.4			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.5			2.2	
p0 queue free %	49	71			100	
cM capacity (veh/h)	589	951			1548	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	299	277	57	352
Volume Left	299	0	0	0
Volume Right	0	277	0	0
cSH	589	951	1700	1700
Volume to Capacity	0.51	0.29	0.03	0.21
Queue Length 95th (ft)	72	30	0	0
Control Delay (s)	17.2	10.3	0.0	0.0
Lane LOS	C	B		
Approach Delay (s)	13.9		0.0	0.0
Approach LOS	B			

Intersection Summary			
Average Delay	8.1		
Intersection Capacity Utilization	39.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	8	2	0	0	0	7	62	288	150	344	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						1.00			1.00	
Frt		0.98						0.89			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		1817						1487			1497	
Flt Permitted		1.00						0.99			0.77	
Satd. Flow (perm)		1817						1475			1177	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	9	2	0	0	0	8	67	313	163	374	1
RTOR Reduction (vph)	0	2	0	0	0	0	0	59	0	0	0	0
Lane Group Flow (vph)	0	9	0	0	0	0	0	329	0	0	538	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	14%	14%	25%	25%	2%
Turn Type	Perm						Perm			Perm		
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		5.0						65.0			65.0	
Effective Green, g (s)		5.0						65.0			65.0	
Actuated g/C Ratio		0.06						0.81			0.81	
Clearance Time (s)		5.0						5.0			5.0	
Lane Grp Cap (vph)		114						1198			956	
v/s Ratio Prot		c0.01										
v/s Ratio Perm								0.22			c0.46	
v/c Ratio		0.08						0.27			0.56	
Uniform Delay, d1		35.3						1.8			2.6	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		1.4						0.6			2.4	
Delay (s)		36.7						2.4			5.0	
Level of Service		D						A			A	
Approach Delay (s)		36.7			0.0			2.4			5.0	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM Average Control Delay	4.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	121.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	8	2	0	0	0	7	62	288	150	350	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						1.00			1.00	
Frt		0.98						0.89			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		1817						1487			1498	
Flt Permitted		1.00						0.99			0.78	
Satd. Flow (perm)		1817						1475			1179	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	9	2	0	0	0	8	67	313	163	380	1
RTOR Reduction (vph)	0	2	0	0	0	0	0	59	0	0	0	0
Lane Group Flow (vph)	0	9	0	0	0	0	0	329	0	0	544	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	14%	14%	25%	25%	2%
Turn Type	Perm						Perm			Perm		
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		5.0						65.0			65.0	
Effective Green, g (s)		5.0						65.0			65.0	
Actuated g/C Ratio		0.06						0.81			0.81	
Clearance Time (s)		5.0						5.0			5.0	
Lane Grp Cap (vph)		114						1198			958	
v/s Ratio Prot		c0.01										
v/s Ratio Perm								0.22			c0.46	
v/c Ratio		0.08						0.27			0.57	
Uniform Delay, d1		35.3						1.8			2.6	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		1.4						0.6			2.4	
Delay (s)		36.7						2.4			5.0	
Level of Service		D						A			A	
Approach Delay (s)		36.7			0.0			2.4			5.0	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM Average Control Delay	4.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	122.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	8	2	0	0	0	7	62	288	150	347	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						1.00			1.00	
Frt		0.98						0.89			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		1817						1487			1498	
Flt Permitted		1.00						0.99			0.77	
Satd. Flow (perm)		1817						1475			1178	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	9	2	0	0	0	8	67	313	163	377	1
RTOR Reduction (vph)	0	2	0	0	0	0	0	59	0	0	0	0
Lane Group Flow (vph)	0	9	0	0	0	0	0	329	0	0	541	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	14%	14%	25%	25%	2%
Turn Type	Perm						Perm			Perm		
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		5.0						65.0			65.0	
Effective Green, g (s)		5.0						65.0			65.0	
Actuated g/C Ratio		0.06						0.81			0.81	
Clearance Time (s)		5.0						5.0			5.0	
Lane Grp Cap (vph)		114						1198			957	
v/s Ratio Prot		c0.01										
v/s Ratio Perm								0.22			c0.46	
v/c Ratio		0.08						0.27			0.57	
Uniform Delay, d1		35.3						1.8			2.6	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		1.4						0.6			2.4	
Delay (s)		36.7						2.4			5.0	
Level of Service		D						A			A	
Approach Delay (s)		36.7			0.0			2.4			5.0	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM Average Control Delay	4.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	122.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	40	17	0	0	0	13	36	648	302	288	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						1.00			1.00	
Frt		0.96						0.87			1.00	
Flt Protected		1.00						1.00			0.98	
Satd. Flow (prot)		1789						1434			1546	
Flt Permitted		1.00						0.99			0.52	
Satd. Flow (perm)		1789						1417			827	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	18	0	0	0	14	39	704	328	313	22
RTOR Reduction (vph)	0	16	0	0	0	0	0	126	0	0	2	0
Lane Group Flow (vph)	0	45	0	0	0	0	0	631	0	0	661	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	16%	16%	20%	20%	2%
Turn Type	Perm						Perm			Perm		
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		7.0						62.0			62.0	
Effective Green, g (s)		7.0						62.0			62.0	
Actuated g/C Ratio		0.09						0.78			0.78	
Clearance Time (s)		5.0						5.0			5.0	
Lane Grp Cap (vph)		159						1112			649	
v/s Ratio Prot		c0.02										
v/s Ratio Perm								0.45			c0.80	
v/c Ratio		0.28						0.57			1.02	
Uniform Delay, d1		33.6						3.3			8.5	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		4.4						2.1			40.3	
Delay (s)		38.0						5.4			48.8	
Level of Service		D						A			D	
Approach Delay (s)		38.0			0.0			5.4			48.8	
Approach LOS		D			A			A			D	

Intersection Summary			
HCM Average Control Delay	26.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	121.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	40	17	0	0	0	13	36	654	331	288	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						1.00			1.00	
Frt		0.96						0.87			1.00	
Flt Protected		1.00						1.00			0.97	
Satd. Flow (prot)		1789						1434			1544	
Flt Permitted		1.00						0.99			0.51	
Satd. Flow (perm)		1789						1416			805	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	18	0	0	0	14	39	711	360	313	22
RTOR Reduction (vph)	0	16	0	0	0	0	0	126	0	0	2	0
Lane Group Flow (vph)	0	45	0	0	0	0	0	638	0	0	693	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	16%	16%	20%	20%	2%
Turn Type	Perm						Perm			Perm		
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		7.0						62.0			62.0	
Effective Green, g (s)		7.0						62.0			62.0	
Actuated g/C Ratio		0.09						0.78			0.78	
Clearance Time (s)		5.0						5.0			5.0	
Lane Grp Cap (vph)		159						1111			632	
v/s Ratio Prot		c0.02										
v/s Ratio Perm								0.45			c0.86	
v/c Ratio		0.28						0.57			1.10	
Uniform Delay, d1		33.6						3.3			8.5	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		4.4						2.2			65.3	
Delay (s)		38.0						5.5			73.8	
Level of Service		D						A			E	
Approach Delay (s)		38.0			0.0			5.5			73.8	
Approach LOS		D			A			A			E	

Intersection Summary			
HCM Average Control Delay	38.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	121.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	40	17	0	0	0	13	36	651	315	288	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						1.00			1.00	
Frt		0.96						0.87			1.00	
Flt Protected		1.00						1.00			0.98	
Satd. Flow (prot)		1789						1434			1545	
Flt Permitted		1.00						0.99			0.52	
Satd. Flow (perm)		1789						1417			816	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	18	0	0	0	14	39	708	342	313	22
RTOR Reduction (vph)	0	16	0	0	0	0	0	126	0	0	2	0
Lane Group Flow (vph)	0	45	0	0	0	0	0	635	0	0	675	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	16%	16%	20%	20%	2%
Turn Type	Perm						Perm			Perm		
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		7.0						62.0			62.0	
Effective Green, g (s)		7.0						62.0			62.0	
Actuated g/C Ratio		0.09						0.78			0.78	
Clearance Time (s)		5.0						5.0			5.0	
Lane Grp Cap (vph)		159						1112			640	
v/s Ratio Prot		c0.02										
v/s Ratio Perm								0.45			c0.83	
v/c Ratio		0.28						0.57			1.06	
Uniform Delay, d1		33.6						3.3			8.5	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		4.4						2.1			51.1	
Delay (s)		38.0						5.4			59.6	
Level of Service		D						A			E	
Approach Delay (s)		38.0			0.0			5.4			59.6	
Approach LOS		D			A			A			E	

Intersection Summary			
HCM Average Control Delay	31.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	121.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	28	25	21	51	36	16	300	5	19	204	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.96		1.00	1.00		1.00	0.95	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1436			1437		1583	1663		1444	1442	
Flt Permitted		0.79			0.93		0.56	1.00		0.56	1.00	
Satd. Flow (perm)		1165			1344		927	1663		853	1442	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	30	27	23	55	39	17	326	5	21	222	115
RTOR Reduction (vph)	0	20	0	0	29	0	0	1	0	0	38	0
Lane Group Flow (vph)	0	96	0	0	88	0	17	330	0	21	299	0
Heavy Vehicles (%)	25%	25%	25%	25%	25%	25%	14%	14%	14%	25%	25%	25%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.0			12.0		27.0	27.0		27.0	27.0	
Effective Green, g (s)		12.0			12.0		27.0	27.0		27.0	27.0	
Actuated g/C Ratio		0.24			0.24		0.55	0.55		0.55	0.55	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		285			329		511	916		470	795	
v/s Ratio Prot								0.20			c0.21	
v/s Ratio Perm		c0.08			0.07		0.02			0.02		
v/c Ratio		0.34			0.27		0.03	0.36		0.04	0.38	
Uniform Delay, d1		15.2			14.9		5.0	6.2		5.1	6.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.2			2.0		0.1	1.1		0.2	1.4	
Delay (s)		18.4			16.9		5.2	7.3		5.2	7.6	
Level of Service		B			B		A	A		A	A	
Approach Delay (s)		18.4			16.9			7.2			7.4	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	49.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	28	25	21	79	36	19	300	5	19	204	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.96		1.00	1.00		1.00	0.95	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1436			1455		1583	1663		1444	1439	
Flt Permitted		0.81			0.94		0.55	1.00		0.56	1.00	
Satd. Flow (perm)		1199			1378		917	1663		853	1439	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	30	27	23	86	39	21	326	5	21	222	122
RTOR Reduction (vph)	0	20	0	0	26	0	0	1	0	0	40	0
Lane Group Flow (vph)	0	96	0	0	122	0	21	330	0	21	304	0
Heavy Vehicles (%)	25%	25%	25%	25%	25%	25%	14%	14%	14%	25%	25%	25%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.0			12.0		27.0	27.0		27.0	27.0	
Effective Green, g (s)		12.0			12.0		27.0	27.0		27.0	27.0	
Actuated g/C Ratio		0.24			0.24		0.55	0.55		0.55	0.55	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		294			337		505	916		470	793	
v/s Ratio Prot								0.20			c0.21	
v/s Ratio Perm		0.08			c0.09		0.02			0.02		
v/c Ratio		0.33			0.36		0.04	0.36		0.04	0.38	
Uniform Delay, d1		15.2			15.3		5.1	6.2		5.1	6.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.9			3.0		0.2	1.1		0.2	1.4	
Delay (s)		18.1			18.3		5.2	7.3		5.2	7.7	
Level of Service		B			B		A	A		A	A	
Approach Delay (s)		18.1			18.3			7.1			7.5	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM Average Control Delay	10.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	49.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	28	25	21	64	36	17	300	5	19	204	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.96		1.00	1.00		1.00	0.95	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1436			1447		1583	1663		1444	1441	
Flt Permitted		0.79			0.93		0.55	1.00		0.56	1.00	
Satd. Flow (perm)		1164			1362		923	1663		853	1441	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	30	27	23	70	39	18	326	5	21	222	118
RTOR Reduction (vph)	0	20	0	0	29	0	0	1	0	0	39	0
Lane Group Flow (vph)	0	96	0	0	103	0	18	330	0	21	301	0
Heavy Vehicles (%)	25%	25%	25%	25%	25%	25%	14%	14%	14%	25%	25%	25%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.0			12.0		27.0	27.0		27.0	27.0	
Effective Green, g (s)		12.0			12.0		27.0	27.0		27.0	27.0	
Actuated g/C Ratio		0.24			0.24		0.55	0.55		0.55	0.55	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		285			334		509	916		470	794	
v/s Ratio Prot								0.20			c0.21	
v/s Ratio Perm		c0.08			0.08		0.02			0.02		
v/c Ratio		0.34			0.31		0.04	0.36		0.04	0.38	
Uniform Delay, d1		15.2			15.1		5.0	6.2		5.1	6.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.2			2.4		0.1	1.1		0.2	1.4	
Delay (s)		18.4			17.5		5.2	7.3		5.2	7.6	
Level of Service		B			B		A	A		A	A	
Approach Delay (s)		18.4			17.5			7.2			7.5	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	49.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	41	26	13	53	70	25	373	11	32	179	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.93		1.00	1.00		1.00	0.96	
Flt Protected		0.96			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1643			1467		1556	1631		1504	1520	
Flt Permitted		0.72			0.97		0.55	1.00		0.38	1.00	
Satd. Flow (perm)		1226			1423		898	1631		604	1520	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	45	28	14	58	76	27	405	12	35	195	71
RTOR Reduction (vph)	0	6	0	0	42	0	0	2	0	0	18	0
Lane Group Flow (vph)	0	262	0	0	106	0	27	415	0	35	248	0
Heavy Vehicles (%)	10%	10%	10%	20%	20%	20%	16%	16%	16%	20%	20%	20%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		32.0			32.0		29.0	29.0		29.0	29.0	
Effective Green, g (s)		32.0			32.0		29.0	29.0		29.0	29.0	
Actuated g/C Ratio		0.45			0.45		0.41	0.41		0.41	0.41	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		553			641		367	666		247	621	
v/s Ratio Prot								c0.25			0.16	
v/s Ratio Perm		c0.21			0.07		0.03			0.06		
v/c Ratio		0.47			0.17		0.07	0.62		0.14	0.40	
Uniform Delay, d1		13.6			11.6		12.8	16.7		13.2	14.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.9			0.6		0.4	4.4		1.2	1.9	
Delay (s)		16.5			12.1		13.2	21.0		14.4	16.7	
Level of Service		B			B		B	C		B	B	
Approach Delay (s)		16.5			12.1			20.6			16.5	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	71.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	185	69	29	13	53	70	25	373	11	32	179	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.93		1.00	1.00		1.00	0.96	
Flt Protected		0.97			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1649			1467		1556	1631		1504	1520	
Flt Permitted		0.74			0.96		0.55	1.00		0.38	1.00	
Satd. Flow (perm)		1258			1419		898	1631		604	1520	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	75	32	14	58	76	27	405	12	35	195	71
RTOR Reduction (vph)	0	6	0	0	42	0	0	2	0	0	18	0
Lane Group Flow (vph)	0	302	0	0	106	0	27	415	0	35	248	0
Heavy Vehicles (%)	10%	10%	10%	20%	20%	20%	16%	16%	16%	20%	20%	20%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		32.0			32.0		29.0	29.0		29.0	29.0	
Effective Green, g (s)		32.0			32.0		29.0	29.0		29.0	29.0	
Actuated g/C Ratio		0.45			0.45		0.41	0.41		0.41	0.41	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		567			640		367	666		247	621	
v/s Ratio Prot								c0.25			0.16	
v/s Ratio Perm		c0.24			0.07		0.03			0.06		
v/c Ratio		0.53			0.17		0.07	0.62		0.14	0.40	
Uniform Delay, d1		14.1			11.6		12.8	16.7		13.2	14.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.6			0.6		0.4	4.4		1.2	1.9	
Delay (s)		17.7			12.1		13.2	21.0		14.4	16.7	
Level of Service		B			B		B	C		B	B	
Approach Delay (s)		17.7			12.1			20.6			16.5	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	71.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	182	54	27	13	53	70	25	373	11	32	179	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.93		1.00	1.00		1.00	0.96	
Flt Protected		0.97			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1647			1467		1556	1631		1504	1520	
Flt Permitted		0.73			0.96		0.55	1.00		0.38	1.00	
Satd. Flow (perm)		1241			1421		898	1631		604	1520	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	198	59	29	14	58	76	27	405	12	35	195	71
RTOR Reduction (vph)	0	5	0	0	42	0	0	2	0	0	18	0
Lane Group Flow (vph)	0	281	0	0	106	0	27	415	0	35	248	0
Heavy Vehicles (%)	10%	10%	10%	20%	20%	20%	16%	16%	16%	20%	20%	20%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		32.0			32.0		29.0	29.0		29.0	29.0	
Effective Green, g (s)		32.0			32.0		29.0	29.0		29.0	29.0	
Actuated g/C Ratio		0.45			0.45		0.41	0.41		0.41	0.41	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		559			640		367	666		247	621	
v/s Ratio Prot								c0.25			0.16	
v/s Ratio Perm		c0.23			0.07		0.03			0.06		
v/c Ratio		0.50			0.17		0.07	0.62		0.14	0.40	
Uniform Delay, d1		13.8			11.6		12.8	16.7		13.2	14.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.2			0.6		0.4	4.4		1.2	1.9	
Delay (s)		17.0			12.1		13.2	21.0		14.4	16.7	
Level of Service		B			B		B	C		B	B	
Approach Delay (s)		17.0			12.1			20.6			16.5	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	71.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	308	9	103	385	28	18	214	156	48	96	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1583	1610	1583	1770	1514			1855	1583		1539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.89	
Satd. Flow (perm)	1583	1610	1583	1770	1514			1798	1583		1383	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	335	10	112	418	30	20	233	170	52	104	102
RTOR Reduction (vph)	0	0	6	0	3	0	0	0	109	0	25	0
Lane Group Flow (vph)	92	335	4	112	445	0	0	253	61	0	233	0
Heavy Vehicles (%)	14%	18%	2%	2%	25%	14%	2%	2%	2%	25%	2%	25%
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2		2	6		
Actuated Green, G (s)	8.0	37.0	37.0	9.0	40.0			34.0	34.0		34.0	
Effective Green, g (s)	8.0	37.0	37.0	9.0	40.0			34.0	34.0		34.0	
Actuated g/C Ratio	0.08	0.39	0.39	0.09	0.42			0.36	0.36		0.36	
Clearance Time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Grp Cap (vph)	133	627	617	168	637			643	567		495	
v/s Ratio Prot	c0.06	0.21		0.06	c0.29							
v/s Ratio Perm			0.00					0.14	0.04		c0.17	
v/c Ratio	0.69	0.53	0.01	0.67	0.70			0.39	0.11		0.47	
Uniform Delay, d1	42.3	22.4	17.7	41.6	22.6			22.8	20.4		23.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	25.6	3.2	0.0	19.0	6.3			1.8	0.4		3.2	
Delay (s)	67.9	25.6	17.8	60.6	28.8			24.6	20.7		26.7	
Level of Service	E	C	B	E	C			C	C		C	
Approach Delay (s)		34.3			35.2			23.1			26.7	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM Average Control Delay	30.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	105.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	308	9	103	385	30	18	214	156	48	96	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1583	1610	1583	1770	1513			1855	1583		1539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.89	
Satd. Flow (perm)	1583	1610	1583	1770	1513			1798	1583		1383	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	335	10	112	418	33	20	233	170	52	104	102
RTOR Reduction (vph)	0	0	6	0	3	0	0	0	109	0	25	0
Lane Group Flow (vph)	93	335	4	112	448	0	0	253	61	0	233	0
Heavy Vehicles (%)	14%	18%	2%	2%	25%	14%	2%	2%	2%	25%	2%	25%
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2		2	6		
Actuated Green, G (s)	8.0	37.0	37.0	9.0	40.0			34.0	34.0		34.0	
Effective Green, g (s)	8.0	37.0	37.0	9.0	40.0			34.0	34.0		34.0	
Actuated g/C Ratio	0.08	0.39	0.39	0.09	0.42			0.36	0.36		0.36	
Clearance Time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Grp Cap (vph)	133	627	617	168	637			643	567		495	
v/s Ratio Prot	c0.06	0.21		0.06	c0.30							
v/s Ratio Perm			0.00					0.14	0.04		c0.17	
v/c Ratio	0.70	0.53	0.01	0.67	0.70			0.39	0.11		0.47	
Uniform Delay, d1	42.3	22.4	17.7	41.6	22.6			22.8	20.4		23.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	26.3	3.2	0.0	19.0	6.4			1.8	0.4		3.2	
Delay (s)	68.7	25.6	17.8	60.6	29.0			24.6	20.7		26.7	
Level of Service	E	C	B	E	C			C	C		C	
Approach Delay (s)		34.6			35.3			23.1			26.7	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM Average Control Delay	30.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	105.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	308	9	103	385	29	18	214	156	48	96	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1583	1610	1583	1770	1513			1855	1583		1539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.89	
Satd. Flow (perm)	1583	1610	1583	1770	1513			1798	1583		1383	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	335	10	112	418	32	20	233	170	52	104	102
RTOR Reduction (vph)	0	0	6	0	3	0	0	0	109	0	25	0
Lane Group Flow (vph)	92	335	4	112	447	0	0	253	61	0	233	0
Heavy Vehicles (%)	14%	18%	2%	2%	25%	14%	2%	2%	2%	25%	2%	25%
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2		2	6		
Actuated Green, G (s)	8.0	37.0	37.0	9.0	40.0			34.0	34.0		34.0	
Effective Green, g (s)	8.0	37.0	37.0	9.0	40.0			34.0	34.0		34.0	
Actuated g/C Ratio	0.08	0.39	0.39	0.09	0.42			0.36	0.36		0.36	
Clearance Time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Grp Cap (vph)	133	627	617	168	637			643	567		495	
v/s Ratio Prot	c0.06	0.21		0.06	c0.30							
v/s Ratio Perm			0.00					0.14	0.04		c0.17	
v/c Ratio	0.69	0.53	0.01	0.67	0.70			0.39	0.11		0.47	
Uniform Delay, d1	42.3	22.4	17.7	41.6	22.6			22.8	20.4		23.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	25.6	3.2	0.0	19.0	6.4			1.8	0.4		3.2	
Delay (s)	67.9	25.6	17.8	60.6	29.0			24.6	20.7		26.7	
Level of Service	E	C	B	E	C			C	C		C	
Approach Delay (s)		34.3			35.3			23.1			26.7	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM Average Control Delay	30.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	105.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	152	371	38	229	227	38	9	125	68	47	118	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1556	1696	1583	1770	1580			1856	1583		1647	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.98	1.00		0.90	
Satd. Flow (perm)	1556	1696	1583	1770	1580			1816	1583		1503	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	403	41	249	247	41	10	136	74	51	128	59
RTOR Reduction (vph)	0	0	22	0	5	0	0	0	54	0	10	0
Lane Group Flow (vph)	165	403	19	249	283	0	0	146	20	0	228	0
Heavy Vehicles (%)	16%	12%	2%	2%	18%	16%	2%	2%	2%	20%	2%	20%
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2		2	6		
Actuated Green, G (s)	38.0	53.0	53.0	16.0	33.0			32.0	32.0		32.0	
Effective Green, g (s)	38.0	53.0	53.0	16.0	33.0			32.0	32.0		32.0	
Actuated g/C Ratio	0.33	0.46	0.46	0.14	0.28			0.28	0.28		0.28	
Clearance Time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Grp Cap (vph)	510	775	723	244	449			501	437		415	
v/s Ratio Prot	0.11	c0.24		c0.14	c0.18							
v/s Ratio Perm			0.01					0.08	0.01		c0.15	
v/c Ratio	0.32	0.52	0.03	1.02	0.63			0.29	0.05		0.55	
Uniform Delay, d1	29.3	22.4	17.3	50.0	36.2			33.1	30.8		35.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.7	2.5	0.1	63.0	6.6			1.5	0.2		5.2	
Delay (s)	31.0	24.9	17.4	113.0	42.8			34.5	31.0		41.0	
Level of Service	C	C	B	F	D			C	C		D	
Approach Delay (s)		26.1			75.3			33.4			41.0	
Approach LOS		C			E			C			D	

Intersection Summary			
HCM Average Control Delay	45.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	116.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	116.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	152	371	38	229	227	38	9	125	68	49	118	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1556	1696	1583	1770	1580			1856	1583		1644	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.90	
Satd. Flow (perm)	1556	1696	1583	1770	1580			1816	1583		1495	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	403	41	249	247	41	10	136	74	53	128	60
RTOR Reduction (vph)	0	0	22	0	5	0	0	0	54	0	10	0
Lane Group Flow (vph)	165	403	19	249	283	0	0	146	20	0	231	0
Heavy Vehicles (%)	16%	12%	2%	2%	18%	16%	2%	2%	2%	20%	2%	20%
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2		2	6		
Actuated Green, G (s)	38.0	53.0	53.0	16.0	33.0			32.0	32.0		32.0	
Effective Green, g (s)	38.0	53.0	53.0	16.0	33.0			32.0	32.0		32.0	
Actuated g/C Ratio	0.33	0.46	0.46	0.14	0.28			0.28	0.28		0.28	
Clearance Time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Grp Cap (vph)	510	775	723	244	449			501	437		412	
v/s Ratio Prot	0.11	c0.24		c0.14	c0.18							
v/s Ratio Perm			0.01					0.08	0.01		c0.15	
v/c Ratio	0.32	0.52	0.03	1.02	0.63			0.29	0.05		0.56	
Uniform Delay, d1	29.3	22.4	17.3	50.0	36.2			33.1	30.8		36.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.7	2.5	0.1	63.0	6.6			1.5	0.2		5.4	
Delay (s)	31.0	24.9	17.4	113.0	42.8			34.5	31.0		41.4	
Level of Service	C	C	B	F	D			C	C		D	
Approach Delay (s)		26.1			75.3			33.4			41.4	
Approach LOS		C			E			C			D	

Intersection Summary			
HCM Average Control Delay	45.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	116.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	118.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	152	371	38	229	227	38	9	125	68	48	118	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1556	1696	1583	1770	1580			1856	1583		1646	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.90	
Satd. Flow (perm)	1556	1696	1583	1770	1580			1816	1583		1499	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	403	41	249	247	41	10	136	74	52	128	59
RTOR Reduction (vph)	0	0	22	0	5	0	0	0	54	0	10	0
Lane Group Flow (vph)	165	403	19	249	283	0	0	146	20	0	229	0
Heavy Vehicles (%)	16%	12%	2%	2%	18%	16%	2%	2%	2%	20%	2%	20%
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2		2	6		
Actuated Green, G (s)	38.0	53.0	53.0	16.0	33.0			32.0	32.0		32.0	
Effective Green, g (s)	38.0	53.0	53.0	16.0	33.0			32.0	32.0		32.0	
Actuated g/C Ratio	0.33	0.46	0.46	0.14	0.28			0.28	0.28		0.28	
Clearance Time (s)	3.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	
Lane Grp Cap (vph)	510	775	723	244	449			501	437		414	
v/s Ratio Prot	0.11	c0.24		c0.14	c0.18							
v/s Ratio Perm			0.01					0.08	0.01		c0.15	
v/c Ratio	0.32	0.52	0.03	1.02	0.63			0.29	0.05		0.55	
Uniform Delay, d1	29.3	22.4	17.3	50.0	36.2			33.1	30.8		35.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.7	2.5	0.1	63.0	6.6			1.5	0.2		5.2	
Delay (s)	31.0	24.9	17.4	113.0	42.8			34.5	31.0		41.1	
Level of Service	C	C	B	F	D			C	C		D	
Approach Delay (s)		26.1			75.3			33.4			41.1	
Approach LOS		C			E			C			D	

Intersection Summary			
HCM Average Control Delay	45.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	116.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	117.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	561	6	43	696	239	6	8	2	131	7	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	
Frt	1.00	1.00		1.00	1.00	0.85		0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98			0.96	
Satd. Flow (prot)	1612	3106		1805	3223	1380		1830			1388	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.92			0.75	
Satd. Flow (perm)	1612	3106		1805	3223	1380		1715			1082	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	610	7	47	757	260	7	9	2	142	8	20
RTOR Reduction (vph)	0	1	0	0	0	168	0	1	0	0	5	0
Lane Group Flow (vph)	18	616	0	47	757	92	0	17	0	0	165	0
Heavy Vehicles (%)	12%	16%	17%	0%	12%	17%	0%	0%	3%	32%	0%	22%
Turn Type	Prot			Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases						8	2			6		
Actuated Green, G (s)	10.0	32.0		10.0	32.0	32.0		33.0			33.0	
Effective Green, g (s)	10.0	32.0		10.0	32.0	32.0		33.0			33.0	
Actuated g/C Ratio	0.11	0.36		0.11	0.36	0.36		0.37			0.37	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Grp Cap (vph)	179	1104		201	1146	491		629			397	
v/s Ratio Prot	0.01	0.20		c0.03	c0.23							
v/s Ratio Perm						0.07		0.01			c0.15	
v/c Ratio	0.10	0.56		0.23	0.66	0.19		0.03			0.42	
Uniform Delay, d1	36.0	23.3		36.5	24.4	20.0		18.2			21.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	1.1	2.0		2.7	3.0	0.8		0.1			3.2	
Delay (s)	37.1	25.4		39.2	27.4	20.9		18.3			24.5	
Level of Service	D	C		D	C	C		B			C	
Approach Delay (s)		25.7			26.3			18.3			24.5	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	561	6	43	698	267	6	8	2	131	7	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	
Frt	1.00	1.00		1.00	1.00	0.85		0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98			0.96	
Satd. Flow (prot)	1612	3106		1805	3223	1380		1830			1388	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.92			0.75	
Satd. Flow (perm)	1612	3106		1805	3223	1380		1715			1082	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	610	7	47	759	290	7	9	2	142	8	20
RTOR Reduction (vph)	0	1	0	0	0	187	0	1	0	0	5	0
Lane Group Flow (vph)	18	616	0	47	759	103	0	17	0	0	165	0
Heavy Vehicles (%)	12%	16%	17%	0%	12%	17%	0%	0%	3%	32%	0%	22%
Turn Type	Prot			Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases						8	2			6		
Actuated Green, G (s)	10.0	32.0		10.0	32.0	32.0		33.0			33.0	
Effective Green, g (s)	10.0	32.0		10.0	32.0	32.0		33.0			33.0	
Actuated g/C Ratio	0.11	0.36		0.11	0.36	0.36		0.37			0.37	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Grp Cap (vph)	179	1104		201	1146	491		629			397	
v/s Ratio Prot	0.01	0.20		c0.03	c0.24							
v/s Ratio Perm						0.07		0.01			c0.15	
v/c Ratio	0.10	0.56		0.23	0.66	0.21		0.03			0.42	
Uniform Delay, d1	36.0	23.3		36.5	24.4	20.2		18.2			21.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	1.1	2.0		2.7	3.0	1.0		0.1			3.2	
Delay (s)	37.1	25.4		39.2	27.5	21.2		18.3			24.5	
Level of Service	D	C		D	C	C		B			C	
Approach Delay (s)		25.7			26.3			18.3			24.5	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	561	6	43	697	252	6	8	2	131	7	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	
Frt	1.00	1.00		1.00	1.00	0.85		0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98			0.96	
Satd. Flow (prot)	1612	3106		1805	3223	1380		1830			1388	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.92			0.75	
Satd. Flow (perm)	1612	3106		1805	3223	1380		1715			1082	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	610	7	47	758	274	7	9	2	142	8	20
RTOR Reduction (vph)	0	1	0	0	0	177	0	1	0	0	5	0
Lane Group Flow (vph)	18	616	0	47	758	97	0	17	0	0	165	0
Heavy Vehicles (%)	12%	16%	17%	0%	12%	17%	0%	0%	3%	32%	0%	22%
Turn Type	Prot			Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases						8	2			6		
Actuated Green, G (s)	10.0	32.0		10.0	32.0	32.0		33.0			33.0	
Effective Green, g (s)	10.0	32.0		10.0	32.0	32.0		33.0			33.0	
Actuated g/C Ratio	0.11	0.36		0.11	0.36	0.36		0.37			0.37	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Grp Cap (vph)	179	1104		201	1146	491		629			397	
v/s Ratio Prot	0.01	0.20		c0.03	c0.24							
v/s Ratio Perm						0.07		0.01			c0.15	
v/c Ratio	0.10	0.56		0.23	0.66	0.20		0.03			0.42	
Uniform Delay, d1	36.0	23.3		36.5	24.4	20.1		18.2			21.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	1.1	2.0		2.7	3.0	0.9		0.1			3.2	
Delay (s)	37.1	25.4		39.2	27.4	21.0		18.3			24.5	
Level of Service	D	C		D	C	C		B			C	
Approach Delay (s)		25.7			26.3			18.3			24.5	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	797	6	110	717	231	8	6	101	206	2	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	
Frt	1.00	1.00		1.00	1.00	0.85		0.88			0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00			0.95	
Satd. Flow (prot)	1433	3341		1805	3406	1495		1656			1568	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.98			0.67	
Satd. Flow (perm)	1433	3341		1805	3406	1495		1624			1092	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	866	7	120	779	251	9	7	110	224	2	11
RTOR Reduction (vph)	0	1	0	0	0	165	0	70	0	0	2	0
Lane Group Flow (vph)	18	872	0	120	779	86	0	56	0	0	235	0
Heavy Vehicles (%)	26%	8%	0%	0%	6%	8%	0%	0%	1%	15%	0%	17%
Turn Type	Prot			Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases						8	2			6		
Actuated Green, G (s)	11.0	31.0		11.0	31.0	31.0		33.0			33.0	
Effective Green, g (s)	11.0	31.0		11.0	31.0	31.0		33.0			33.0	
Actuated g/C Ratio	0.12	0.34		0.12	0.34	0.34		0.37			0.37	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Grp Cap (vph)	175	1151		221	1173	515		595			400	
v/s Ratio Prot	0.01	c0.26		c0.07	0.23							
v/s Ratio Perm						0.06		0.03			c0.22	
v/c Ratio	0.10	0.76		0.54	0.66	0.17		0.09			0.59	
Uniform Delay, d1	35.1	26.2		37.1	25.1	20.5		18.7			23.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	1.2	4.7		9.3	3.0	0.7		0.3			6.2	
Delay (s)	36.3	30.9		46.4	28.1	21.2		19.0			29.2	
Level of Service	D	C		D	C	C		B			C	
Approach Delay (s)		31.0			28.5			19.0			29.2	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	29.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	799	6	110	717	231	8	6	101	234	2	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	
Frt	1.00	1.00		1.00	1.00	0.85		0.88			0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00			0.95	
Satd. Flow (prot)	1433	3341		1805	3406	1495		1656			1569	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.98			0.66	
Satd. Flow (perm)	1433	3341		1805	3406	1495		1621			1091	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	868	7	120	779	251	9	7	110	254	2	11
RTOR Reduction (vph)	0	1	0	0	0	165	0	70	0	0	2	0
Lane Group Flow (vph)	18	874	0	120	779	86	0	56	0	0	265	0
Heavy Vehicles (%)	26%	8%	0%	0%	6%	8%	0%	0%	1%	15%	0%	17%
Turn Type	Prot			Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases						8	2			6		
Actuated Green, G (s)	11.0	31.0		11.0	31.0	31.0		33.0			33.0	
Effective Green, g (s)	11.0	31.0		11.0	31.0	31.0		33.0			33.0	
Actuated g/C Ratio	0.12	0.34		0.12	0.34	0.34		0.37			0.37	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Grp Cap (vph)	175	1151		221	1173	515		594			400	
v/s Ratio Prot	0.01	c0.26		c0.07	0.23							
v/s Ratio Perm						0.06		0.03			c0.24	
v/c Ratio	0.10	0.76		0.54	0.66	0.17		0.09			0.66	
Uniform Delay, d1	35.1	26.2		37.1	25.1	20.5		18.7			23.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	1.2	4.7		9.3	3.0	0.7		0.3			8.4	
Delay (s)	36.3	30.9		46.4	28.1	21.2		19.0			32.2	
Level of Service	D	C		D	C	C		B			C	
Approach Delay (s)		31.0			28.5			19.0			32.2	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	798	6	110	717	231	8	6	101	219	2	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	
Frt	1.00	1.00		1.00	1.00	0.85		0.88			0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00			0.95	
Satd. Flow (prot)	1433	3341		1805	3406	1495		1656			1568	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.98			0.66	
Satd. Flow (perm)	1433	3341		1805	3406	1495		1623			1092	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	867	7	120	779	251	9	7	110	238	2	11
RTOR Reduction (vph)	0	1	0	0	0	165	0	70	0	0	2	0
Lane Group Flow (vph)	18	873	0	120	779	86	0	56	0	0	249	0
Heavy Vehicles (%)	26%	8%	0%	0%	6%	8%	0%	0%	1%	15%	0%	17%
Turn Type	Prot			Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases						8	2			6		
Actuated Green, G (s)	11.0	31.0		11.0	31.0	31.0		33.0			33.0	
Effective Green, g (s)	11.0	31.0		11.0	31.0	31.0		33.0			33.0	
Actuated g/C Ratio	0.12	0.34		0.12	0.34	0.34		0.37			0.37	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	
Lane Grp Cap (vph)	175	1151		221	1173	515		595			400	
v/s Ratio Prot	0.01	c0.26		c0.07	0.23							
v/s Ratio Perm						0.06		0.03			c0.23	
v/c Ratio	0.10	0.76		0.54	0.66	0.17		0.09			0.62	
Uniform Delay, d1	35.1	26.2		37.1	25.1	20.5		18.7			23.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	1.2	4.7		9.3	3.0	0.7		0.3			7.1	
Delay (s)	36.3	30.9		46.4	28.1	21.2		19.0			30.5	
Level of Service	D	C		D	C	C		B			C	
Approach Delay (s)		31.0			28.5			19.0			30.5	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	29.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	615	185	158	499	0	0	0	0	306	0	518
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4550	1417	1641	3223					1559	1559	1380
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4550	1417	1641	3223					1559	1559	1380
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	668	201	172	542	0	0	0	0	333	0	563
RTOR Reduction (vph)	0	0	139	0	0	0	0	0	0	0	0	217
Lane Group Flow (vph)	0	668	62	172	542	0	0	0	0	166	167	346
Heavy Vehicles (%)	2%	14%	14%	10%	12%	2%	2%	2%	2%	10%	2%	17%
Turn Type			Perm	Prot						Split		Perm
Protected Phases		4		3	8					6	6	
Permitted Phases			4									6
Actuated Green, G (s)		24.0	24.0	15.0	44.0					24.0	24.0	24.0
Effective Green, g (s)		24.0	24.0	15.0	44.0					24.0	24.0	24.0
Actuated g/C Ratio		0.31	0.31	0.19	0.56					0.31	0.31	0.31
Clearance Time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Grp Cap (vph)		1400	436	316	1818					480	480	425
v/s Ratio Prot		c0.15		c0.10	0.17					0.11	0.11	
v/s Ratio Perm			0.04									c0.25
v/c Ratio		0.48	0.14	0.54	0.30					0.35	0.35	0.81
Uniform Delay, d1		21.9	19.5	28.4	8.9					20.9	20.9	24.9
Progression Factor		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		1.2	0.7	6.6	0.4					2.0	2.0	15.6
Delay (s)		23.1	20.2	35.0	9.3					22.9	22.9	40.5
Level of Service		C	C	D	A					C	C	D
Approach Delay (s)		22.4			15.5			0.0			34.0	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	78.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	615	185	158	515	0	0	0	0	306	0	532
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4550	1417	1641	3223					1559	1559	1380
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4550	1417	1641	3223					1559	1559	1380
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	668	201	172	560	0	0	0	0	333	0	578
RTOR Reduction (vph)	0	0	139	0	0	0	0	0	0	0	0	208
Lane Group Flow (vph)	0	668	62	172	560	0	0	0	0	166	167	370
Heavy Vehicles (%)	2%	14%	14%	10%	12%	2%	2%	2%	2%	10%	2%	17%
Turn Type			Perm	Prot						Split		Perm
Protected Phases		4		3	8					6	6	
Permitted Phases			4									6
Actuated Green, G (s)		24.0	24.0	15.0	44.0					24.0	24.0	24.0
Effective Green, g (s)		24.0	24.0	15.0	44.0					24.0	24.0	24.0
Actuated g/C Ratio		0.31	0.31	0.19	0.56					0.31	0.31	0.31
Clearance Time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Grp Cap (vph)		1400	436	316	1818					480	480	425
v/s Ratio Prot		c0.15		c0.10	0.17					0.11	0.11	
v/s Ratio Perm			0.04									c0.27
v/c Ratio		0.48	0.14	0.54	0.31					0.35	0.35	0.87
Uniform Delay, d1		21.9	19.5	28.4	9.0					20.9	20.9	25.5
Progression Factor		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		1.2	0.7	6.6	0.4					2.0	2.0	21.0
Delay (s)		23.1	20.2	35.0	9.4					22.9	22.9	46.6
Level of Service		C	C	D	A					C	C	D
Approach Delay (s)		22.4			15.4			0.0			37.9	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM Average Control Delay	26.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	78.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	615	185	158	507	0	0	0	0	306	0	524
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4550	1417	1641	3223					1559	1559	1380
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4550	1417	1641	3223					1559	1559	1380
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	668	201	172	551	0	0	0	0	333	0	570
RTOR Reduction (vph)	0	0	139	0	0	0	0	0	0	0	0	213
Lane Group Flow (vph)	0	668	62	172	551	0	0	0	0	166	167	357
Heavy Vehicles (%)	2%	14%	14%	10%	12%	2%	2%	2%	2%	10%	2%	17%
Turn Type			Perm	Prot						Split		Perm
Protected Phases		4		3	8					6	6	
Permitted Phases			4									6
Actuated Green, G (s)		24.0	24.0	15.0	44.0					24.0	24.0	24.0
Effective Green, g (s)		24.0	24.0	15.0	44.0					24.0	24.0	24.0
Actuated g/C Ratio		0.31	0.31	0.19	0.56					0.31	0.31	0.31
Clearance Time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Grp Cap (vph)		1400	436	316	1818					480	480	425
v/s Ratio Prot		c0.15		c0.10	0.17					0.11	0.11	
v/s Ratio Perm			0.04									c0.26
v/c Ratio		0.48	0.14	0.54	0.30					0.35	0.35	0.84
Uniform Delay, d1		21.9	19.5	28.4	8.9					20.9	20.9	25.2
Progression Factor		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		1.2	0.7	6.6	0.4					2.0	2.0	17.9
Delay (s)		23.1	20.2	35.0	9.4					22.9	22.9	43.1
Level of Service		C	C	D	A					C	C	D
Approach Delay (s)		22.4			15.5			0.0			35.7	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM Average Control Delay	25.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	78.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	784	202	181	408	0	0	0	0	318	0	519
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4550	1417	1641	3223					1559	1559	1380
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4550	1417	1641	3223					1559	1559	1380
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	852	220	197	443	0	0	0	0	346	0	564
RTOR Reduction (vph)	0	0	117	0	0	0	0	0	0	0	0	412
Lane Group Flow (vph)	0	852	103	197	443	0	0	0	0	173	173	152
Heavy Vehicles (%)	2%	14%	14%	10%	12%	2%	2%	2%	2%	10%	2%	17%
Turn Type			Perm	Prot						Split		Perm
Protected Phases		4		3	8					6	6	
Permitted Phases			4									6
Actuated Green, G (s)		44.0	44.0	19.0	68.0					16.0	16.0	16.0
Effective Green, g (s)		44.0	44.0	19.0	68.0					16.0	16.0	16.0
Actuated g/C Ratio		0.47	0.47	0.20	0.72					0.17	0.17	0.17
Clearance Time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Grp Cap (vph)		2130	663	332	2332					265	265	235
v/s Ratio Prot		c0.19		c0.12	0.14					c0.11	0.11	
v/s Ratio Perm			0.07									0.11
v/c Ratio		0.40	0.16	0.59	0.19					0.65	0.65	0.65
Uniform Delay, d1		16.4	14.3	34.0	4.2					36.4	36.4	36.4
Progression Factor		1.00	1.00	1.21	1.39					1.00	1.00	1.00
Incremental Delay, d2		0.6	0.5	7.5	0.2					11.9	11.9	12.9
Delay (s)		16.9	14.8	48.6	6.0					48.3	48.3	49.2
Level of Service		B	B	D	A					D	D	D
Approach Delay (s)		16.5			19.1			0.0			48.9	
Approach LOS		B			B			A			D	

Intersection Summary			
HCM Average Control Delay	28.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	94.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	808	208	181	408	0	0	0	0	318	0	519
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4550	1417	1641	3223					1559	1559	1380
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4550	1417	1641	3223					1559	1559	1380
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	878	226	197	443	0	0	0	0	346	0	564
RTOR Reduction (vph)	0	0	120	0	0	0	0	0	0	0	0	412
Lane Group Flow (vph)	0	878	106	197	443	0	0	0	0	173	173	152
Heavy Vehicles (%)	2%	14%	14%	10%	12%	2%	2%	2%	2%	10%	2%	17%
Turn Type			Perm	Prot						Split		Perm
Protected Phases		4		3	8					6	6	
Permitted Phases			4									6
Actuated Green, G (s)		44.0	44.0	19.0	68.0					16.0	16.0	16.0
Effective Green, g (s)		44.0	44.0	19.0	68.0					16.0	16.0	16.0
Actuated g/C Ratio		0.47	0.47	0.20	0.72					0.17	0.17	0.17
Clearance Time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Grp Cap (vph)		2130	663	332	2332					265	265	235
v/s Ratio Prot		c0.19		c0.12	0.14					c0.11	0.11	
v/s Ratio Perm			0.07									0.11
v/c Ratio		0.41	0.16	0.59	0.19					0.65	0.65	0.65
Uniform Delay, d1		16.5	14.4	34.0	4.2					36.4	36.4	36.4
Progression Factor		1.00	1.00	1.21	1.39					1.00	1.00	1.00
Incremental Delay, d2		0.6	0.5	7.5	0.2					11.9	11.9	12.9
Delay (s)		17.1	14.9	48.6	6.0					48.3	48.3	49.2
Level of Service		B	B	D	A					D	D	D
Approach Delay (s)		16.6			19.1			0.0			48.9	
Approach LOS		B			B			A			D	

Intersection Summary			
HCM Average Control Delay	28.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	94.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	795	205	181	408	0	0	0	0	318	0	519
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4550	1417	1641	3223					1559	1559	1380
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4550	1417	1641	3223					1559	1559	1380
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	864	223	197	443	0	0	0	0	346	0	564
RTOR Reduction (vph)	0	0	119	0	0	0	0	0	0	0	0	412
Lane Group Flow (vph)	0	864	104	197	443	0	0	0	0	173	173	152
Heavy Vehicles (%)	2%	14%	14%	10%	12%	2%	2%	2%	2%	10%	2%	17%
Turn Type			Perm	Prot						Split		Perm
Protected Phases		4		3	8					6	6	
Permitted Phases			4									6
Actuated Green, G (s)		44.0	44.0	19.0	68.0					16.0	16.0	16.0
Effective Green, g (s)		44.0	44.0	19.0	68.0					16.0	16.0	16.0
Actuated g/C Ratio		0.47	0.47	0.20	0.72					0.17	0.17	0.17
Clearance Time (s)		5.0	5.0	5.0	5.0					5.0	5.0	5.0
Lane Grp Cap (vph)		2130	663	332	2332					265	265	235
v/s Ratio Prot		c0.19		c0.12	0.14					c0.11	0.11	
v/s Ratio Perm			0.07									0.11
v/c Ratio		0.41	0.16	0.59	0.19					0.65	0.65	0.65
Uniform Delay, d1		16.4	14.4	34.0	4.2					36.4	36.4	36.4
Progression Factor		1.00	1.00	1.21	1.39					1.00	1.00	1.00
Incremental Delay, d2		0.6	0.5	7.5	0.2					11.9	11.9	12.9
Delay (s)		17.0	14.9	48.6	6.0					48.3	48.3	49.2
Level of Service		B	B	D	A					D	D	D
Approach Delay (s)		16.6			19.1			0.0			48.9	
Approach LOS		B			B			A			D	

Intersection Summary			
HCM Average Control Delay	28.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	94.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	328	588	0	0	318	156	264	5	265	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1543	3282			4715	1468	1491	1503	1468			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	1543	3282			4715	1468	1491	1503	1468			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	357	639	0	0	346	170	287	5	288	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	122	0	0	249	0	0	0
Lane Group Flow (vph)	357	639	0	0	346	48	146	146	39	0	0	0
Heavy Vehicles (%)	17%	10%	2%	2%	10%	10%	15%	2%	10%	2%	2%	2%
Turn Type	Prot					Perm	Split		Perm			
Protected Phases	7	4			8		2	2				
Permitted Phases						8			2			
Actuated Green, G (s)	42.0	72.0			27.0	27.0	13.0	13.0	13.0			
Effective Green, g (s)	42.0	72.0			27.0	27.0	13.0	13.0	13.0			
Actuated g/C Ratio	0.44	0.76			0.28	0.28	0.14	0.14	0.14			
Clearance Time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Grp Cap (vph)	682	2487			1340	417	204	206	201			
v/s Ratio Prot	c0.23	c0.19			0.07		c0.10	0.10				
v/s Ratio Perm						0.03			0.03			
v/c Ratio	0.52	0.26			0.26	0.12	0.72	0.71	0.20			
Uniform Delay, d1	19.2	3.5			26.3	25.2	39.2	39.2	36.4			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	2.9	0.3			0.5	0.6	19.3	18.6	2.2			
Delay (s)	22.1	3.7			26.7	25.7	58.5	57.8	38.5			
Level of Service	C	A			C	C	E	E	D			
Approach Delay (s)		10.3			26.4			48.4			0.0	
Approach LOS		B			C			D			A	

Intersection Summary			
HCM Average Control Delay	24.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	328	588	0	0	328	156	270	5	265	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1543	3282			4715	1468	1491	1503	808			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	1543	3282			4715	1468	1491	1503	808			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	357	639	0	0	357	170	293	5	288	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	122	0	0	249	0	0	0
Lane Group Flow (vph)	357	639	0	0	357	48	149	149	39	0	0	0
Heavy Vehicles (%)	17%	10%	2%	2%	10%	10%	15%	2%	100%	2%	2%	2%
Turn Type	Prot					Perm	Split		Perm			
Protected Phases	7	4			8		2	2				
Permitted Phases						8			2			
Actuated Green, G (s)	42.0	72.0			27.0	27.0	13.0	13.0	13.0			
Effective Green, g (s)	42.0	72.0			27.0	27.0	13.0	13.0	13.0			
Actuated g/C Ratio	0.44	0.76			0.28	0.28	0.14	0.14	0.14			
Clearance Time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Grp Cap (vph)	682	2487			1340	417	204	206	111			
v/s Ratio Prot	c0.23	c0.19			0.08		c0.10	0.10				
v/s Ratio Perm						0.03			0.05			
v/c Ratio	0.52	0.26			0.27	0.12	0.73	0.72	0.36			
Uniform Delay, d1	19.2	3.5			26.3	25.2	39.3	39.3	37.2			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	2.9	0.3			0.5	0.6	20.5	19.7	8.7			
Delay (s)	22.1	3.7			26.8	25.7	59.8	59.0	45.9			
Level of Service	C	A			C	C	E	E	D			
Approach Delay (s)		10.3			26.5			52.7			0.0	
Approach LOS		B			C			D			A	

Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	328	588	0	0	323	156	267	5	265	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1543	3282			4715	1468	1491	1503	808			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	1543	3282			4715	1468	1491	1503	808			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	357	639	0	0	351	170	290	5	288	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	122	0	0	249	0	0	0
Lane Group Flow (vph)	357	639	0	0	351	48	148	147	39	0	0	0
Heavy Vehicles (%)	17%	10%	2%	2%	10%	10%	15%	2%	100%	2%	2%	2%
Turn Type	Prot					Perm	Split		Perm			
Protected Phases	7	4			8		2	2				
Permitted Phases						8			2			
Actuated Green, G (s)	42.0	72.0			27.0	27.0	13.0	13.0	13.0			
Effective Green, g (s)	42.0	72.0			27.0	27.0	13.0	13.0	13.0			
Actuated g/C Ratio	0.44	0.76			0.28	0.28	0.14	0.14	0.14			
Clearance Time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Grp Cap (vph)	682	2487			1340	417	204	206	111			
v/s Ratio Prot	c0.23	c0.19			0.07		c0.10	0.10				
v/s Ratio Perm						0.03			0.05			
v/c Ratio	0.52	0.26			0.26	0.12	0.73	0.71	0.36			
Uniform Delay, d1	19.2	3.5			26.3	25.2	39.3	39.2	37.2			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	2.9	0.3			0.5	0.6	20.1	19.0	8.7			
Delay (s)	22.1	3.7			26.8	25.7	59.4	58.2	45.9			
Level of Service	C	A			C	C	E	E	D			
Approach Delay (s)		10.3			26.4			52.4			0.0	
Approach LOS		B			C			D			A	

Intersection Summary

HCM Average Control Delay	26.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	557	669	0	0	314	220	144	4	260	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1543	3282			4715	1468	1491	1507	1468			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	1543	3282			4715	1468	1491	1507	1468			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	605	727	0	0	341	239	157	4	283	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	170	0	0	244	0	0	0
Lane Group Flow (vph)	605	727	0	0	341	69	80	81	39	0	0	0
Heavy Vehicles (%)	17%	10%	2%	2%	10%	10%	15%	2%	10%	2%	2%	2%
Turn Type	Prot					Perm	Split		Perm			
Protected Phases	7	4			8		2	2				
Permitted Phases						8			2			
Actuated Green, G (s)	41.0	71.0			27.0	27.0	13.0	13.0	13.0			
Effective Green, g (s)	41.0	71.0			27.0	27.0	13.0	13.0	13.0			
Actuated g/C Ratio	0.44	0.76			0.29	0.29	0.14	0.14	0.14			
Clearance Time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Grp Cap (vph)	673	2479			1354	422	206	208	203			
v/s Ratio Prot	c0.39	c0.22			0.07		0.05	c0.05				
v/s Ratio Perm						0.05			0.03			
v/c Ratio	0.90	0.29			0.25	0.16	0.39	0.39	0.19			
Uniform Delay, d1	24.6	3.6			25.7	25.0	36.9	36.9	35.9			
Progression Factor	1.41	0.68			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	16.2	0.3			0.4	0.8	5.4	5.4	2.1			
Delay (s)	50.8	2.7			26.2	25.9	42.3	42.3	38.0			
Level of Service	D	A			C	C	D	D	D			
Approach Delay (s)		24.5			26.1			39.5			0.0	
Approach LOS		C			C			D			A	

Intersection Summary			
HCM Average Control Delay	27.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	94.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	571	679	0	0	314	220	144	4	260	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1543	3282			4715	1468	1491	1507	1468			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	1543	3282			4715	1468	1491	1507	1468			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	621	738	0	0	341	239	157	4	283	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	170	0	0	244	0	0	0
Lane Group Flow (vph)	621	738	0	0	341	69	80	81	39	0	0	0
Heavy Vehicles (%)	17%	10%	2%	2%	10%	10%	15%	2%	10%	2%	2%	2%
Turn Type	Prot					Perm	Split		Perm			
Protected Phases	7	4			8		2	2				
Permitted Phases						8			2			
Actuated Green, G (s)	41.0	71.0			27.0	27.0	13.0	13.0	13.0			
Effective Green, g (s)	41.0	71.0			27.0	27.0	13.0	13.0	13.0			
Actuated g/C Ratio	0.44	0.76			0.29	0.29	0.14	0.14	0.14			
Clearance Time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Grp Cap (vph)	673	2479			1354	422	206	208	203			
v/s Ratio Prot	c0.40	c0.22			0.07		0.05	c0.05				
v/s Ratio Perm						0.05			0.03			
v/c Ratio	0.92	0.30			0.25	0.16	0.39	0.39	0.19			
Uniform Delay, d1	25.0	3.6			25.7	25.0	36.9	36.9	35.9			
Progression Factor	1.41	0.68			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	19.0	0.3			0.4	0.8	5.4	5.4	2.1			
Delay (s)	54.3	2.8			26.2	25.9	42.3	42.3	38.0			
Level of Service	D	A			C	C	D	D	D			
Approach Delay (s)		26.3			26.1			39.5			0.0	
Approach LOS		C			C			D			A	

Intersection Summary			
HCM Average Control Delay	28.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	94.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	563	674	0	0	314	220	144	4	260	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Util. Factor	1.00	0.95			0.91	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1543	3282			4715	1468	1491	1507	1468			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	1543	3282			4715	1468	1491	1507	1468			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	612	733	0	0	341	239	157	4	283	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	170	0	0	244	0	0	0
Lane Group Flow (vph)	612	733	0	0	341	69	80	81	39	0	0	0
Heavy Vehicles (%)	17%	10%	2%	2%	10%	10%	15%	2%	10%	2%	2%	2%
Turn Type	Prot					Perm	Split		Perm			
Protected Phases	7	4			8		2	2				
Permitted Phases						8			2			
Actuated Green, G (s)	41.0	71.0			27.0	27.0	13.0	13.0	13.0			
Effective Green, g (s)	41.0	71.0			27.0	27.0	13.0	13.0	13.0			
Actuated g/C Ratio	0.44	0.76			0.29	0.29	0.14	0.14	0.14			
Clearance Time (s)	3.0	5.0			5.0	5.0	5.0	5.0	5.0			
Lane Grp Cap (vph)	673	2479			1354	422	206	208	203			
v/s Ratio Prot	c0.40	c0.22			0.07		0.05	c0.05				
v/s Ratio Perm						0.05			0.03			
v/c Ratio	0.91	0.30			0.25	0.16	0.39	0.39	0.19			
Uniform Delay, d1	24.8	3.6			25.7	25.0	36.9	36.9	35.9			
Progression Factor	1.41	0.68			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	17.3	0.3			0.4	0.8	5.4	5.4	2.1			
Delay (s)	52.2	2.7			26.2	25.9	42.3	42.3	38.0			
Level of Service	D	A			C	C	D	D	D			
Approach Delay (s)		25.3			26.1			39.5			0.0	
Approach LOS		C			C			D			A	

Intersection Summary			
HCM Average Control Delay	28.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	94.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	4	0	4	2	0	3	3	29	10	5	32	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	0	4	2	0	3	3	32	11	5	35	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	92	89	37	93	95	35	35			42		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	92	89	37	93	95	35	35			42		
tC, single (s)	7.8	7.2	7.0	7.8	7.2	7.0	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.2	4.7	4.0	4.2	4.7	4.0	2.2			2.2		
p0 queue free %	99	100	99	100	100	100	100			100		
cM capacity (veh/h)	737	678	861	735	673	863	1577			1567		

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	9	5	46	40
Volume Left	4	2	3	5
Volume Right	4	3	11	0
cSH	794	807	1577	1567
Volume to Capacity	0.01	0.01	0.00	0.00
Queue Length 95th (ft)	1	1	0	0
Control Delay (s)	9.6	9.5	0.5	1.0
Lane LOS	A	A	A	A
Approach Delay (s)	9.6	9.5	0.5	1.0
Approach LOS	A	A		

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	0	4	4	2	0	3	3	29	48	42	32	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	4	4	2	0	3	3	32	52	46	35	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	193	190	58	197	216	35	35			84		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	193	190	58	197	216	35	35			84		
tC, single (s)	7.8	7.2	7.0	7.8	7.2	7.0	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.2	4.7	4.0	4.2	4.7	4.0	2.2			2.2		
p0 queue free %	100	99	99	100	100	100	100			97		
cM capacity (veh/h)	613	573	836	606	553	863	1577			1513		

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	9	5	87	80
Volume Left	0	2	3	46
Volume Right	4	3	52	0
cSH	680	738	1577	1513
Volume to Capacity	0.01	0.01	0.00	0.03
Queue Length 95th (ft)	1	1	0	2
Control Delay (s)	10.4	9.9	0.3	4.3
Lane LOS	B	A	A	A
Approach Delay (s)	10.4	9.9	0.3	4.3
Approach LOS	B	A		

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	0	4	4	2	0	3	3	29	27	22	32	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	4	4	2	0	3	3	32	29	24	35	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	139	135	46	142	150	35	35			61		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	139	135	46	142	150	35	35			61		
tC, single (s)	7.8	7.2	7.0	7.8	7.2	7.0	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.2	4.7	4.0	4.2	4.7	4.0	2.2			2.2		
p0 queue free %	100	99	99	100	100	100	100			98		
cM capacity (veh/h)	678	628	850	670	616	863	1577			1542		

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	9	5	64	59
Volume Left	0	2	3	24
Volume Right	4	3	29	0
cSH	722	774	1577	1542
Volume to Capacity	0.01	0.01	0.00	0.02
Queue Length 95th (ft)	1	1	0	1
Control Delay (s)	10.0	9.7	0.4	3.1
Lane LOS	B	A	A	A
Approach Delay (s)	10.0	9.7	0.4	3.1
Approach LOS	B	A		

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	10	0	3	0	0	3	3	32	4	5	32	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	3	0	0	3	3	35	4	5	35	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	92	89	37	92	91	35	35			39		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	92	89	37	92	91	35	35			39		
tC, single (s)	7.8	7.2	7.0	7.8	7.2	7.0	4.8			4.8		
tC, 2 stage (s)												
tF (s)	4.2	4.7	4.0	4.2	4.7	4.0	2.9			2.9		
p0 queue free %	99	100	100	100	100	100	100			100		
cM capacity (veh/h)	737	677	861	737	675	863	1212			1207		

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	14	3	42	40
Volume Left	11	0	3	5
Volume Right	3	3	4	0
cSH	762	863	1212	1207
Volume to Capacity	0.02	0.00	0.00	0.00
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	9.8	9.2	0.6	1.1
Lane LOS	A	A	A	A
Approach Delay (s)	9.8	9.2	0.6	1.1
Approach LOS	A	A		

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	48	0	42	0	0	3	3	32	4	5	32	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	0	46	0	0	3	3	35	4	5	35	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	92	89	37	135	91	35	35			39		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	92	89	37	135	91	35	35			39		
tC, single (s)	7.8	7.2	7.0	7.8	7.2	7.0	4.8			4.8		
tC, 2 stage (s)												
tF (s)	4.2	4.7	4.0	4.2	4.7	4.0	2.9			2.9		
p0 queue free %	93	100	95	100	100	100	100			100		
cM capacity (veh/h)	737	677	861	654	675	863	1212			1207		

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	98	3	42	40
Volume Left	52	0	3	5
Volume Right	46	3	4	0
cSH	790	863	1212	1207
Volume to Capacity	0.12	0.00	0.00	0.00
Queue Length 95th (ft)	11	0	0	0
Control Delay (s)	10.2	9.2	0.6	1.1
Lane LOS	B	A	A	A
Approach Delay (s)	10.2	9.2	0.6	1.1
Approach LOS	B	A		

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	21.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	27	0	22	0	0	3	3	32	4	5	32	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	0	24	0	0	3	3	35	4	5	35	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	92	89	37	113	91	35	35			39		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	92	89	37	113	91	35	35			39		
tC, single (s)	7.8	7.2	7.0	7.8	7.2	7.0	4.8			4.8		
tC, 2 stage (s)												
tF (s)	4.2	4.7	4.0	4.2	4.7	4.0	2.9			2.9		
p0 queue free %	96	100	97	100	100	100	100			100		
cM capacity (veh/h)	737	677	861	695	675	863	1212			1207		

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	53	3	42	40
Volume Left	29	0	3	5
Volume Right	24	3	4	0
cSH	787	863	1212	1207
Volume to Capacity	0.07	0.00	0.00	0.00
Queue Length 95th (ft)	5	0	0	0
Control Delay (s)	9.9	9.2	0.6	1.1
Lane LOS	A	A	A	A
Approach Delay (s)	9.9	9.2	0.6	1.1
Approach LOS	A	A		

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	19.5%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix H – Phase I Environmental Assessment

Phase I ESA

Targa Stockton Terminal (TST)

3028 Navy Drive

Stockton, California

This Phase I has been prepared for:

Targa Terminals, LLC

1000 Louisiana, Suite 4300, Houston, Texas 77002

November 9, 2011

Table of Contents

1.0 EXECUTIVE SUMMARY 1.1

2.0 INTRODUCTION 2.1
2.1 PURPOSE 2.1
2.2 SCOPE OF INVESTIGATION/SERVICES 2.1
2.3 SPECIAL TERMS AND CONDITIONS 2.2
2.4 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT 2.2
2.4.1 Accuracy and Completeness 2.2
2.4.2 Warranties and Representations 2.2
2.4.3 Continued Validity/User Reliance 2.3
2.4.4 Significant Assumptions 2.3
2.5 LIMITING CONDITIONS AND METHODOLOGY USED 2.3

3.0 SITE DESCRIPTION 3.1
3.1 LOCATION AND LEGAL DESCRIPTION 3.1
3.2 SITE AND VICINITY CHARACTERISTICS 3.1
3.3 GEOLOGY AND HYDROLOGY 3.2
3.4 DESCRIPTION OF STRUCTURES, ROADS, AND OTHER IMPROVEMENTS ON THE SUBJECT PROPERTY 3.3
3.5 INFORMATION REPORTED BY USER REGARDING ENVIRONMENTAL LIENS OR SPECIALIZED KNOWLEDGE OR EXPERIENCE 3.3
3.6 CURRENT USES OF THE SUBJECT PROPERTY 3.3
3.7 PAST USES OF THE SUBJECT PROPERTY 3.4
3.8 CURRENT AND PAST USES OF ADJOINING PROPERTIES 3.4

4.0 USER PROVIDED INFORMATION 4.1
4.1 REQUESTED DOCUMENTS AND INFORMATION 4.1
4.2 TITLE RECORDS 4.2
4.3 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS 4.2
4.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES 4.2
4.5 OWNER, PROPERTY MANAGER AND OCCUPANT INFORMATION 4.2

5.0 RECORDS REVIEW 5.1
5.1 STANDARD ENVIRONMENTAL RECORDS SOURCES 5.1
5.2 PHYSICAL SETTING SOURCES 5.3
5.3 HISTORICAL USE INFORMATION 5.4
5.4 ADDITIONAL RECORD SOURCES 5.5

6.0 INTERVIEWS.....6.1
6.1 INTERVIEWS WITH OWNER'S REPRESENTATIVE 6.1
6.2 NEIGHBORING PROPERTY OWNER INTERVIEWS.....6.1
6.3 OTHER INTERVIEWS AND INFORMATION SOURCES.....6.1

7.0 INFORMATION FROM SITE RECONNAISSANCE AND REVIEWS 7.1
7.1 HAZARDOUS SUBSTANCES IN CONNECTION WITH IDENTIFIED USES 7.1
7.2 HAZARDOUS SUBSTANCES CONTAINERS AND UNIDENTIFIED SUBSTANCE CONTAINERS 7.1
7.3 STORAGE TANKS.....7.1
7.4 INDICATION OF POLYCHLORINATED BIPHENYLS.....7.1
7.4.1 Polychlorinated Biphenyls (PCBs) 7.1
7.5 INDICATIONS OF SOLID WASTE DISPOSAL 7.1
7.6 PHYSICAL SETTING ANALYSIS.....7.2
7.6.1 Hazardous Materials 7.2
7.6.2 Air Pollution.....7.2
7.6.3 Transient Water Pollution 7.3
7.7 ADDITIONAL CONDITIONS OF CONCERN.....7.3

8.0 FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS 8.1

9.0 ENVIRONMENTAL PROFESSIONAL STATEMENT 9.1

10.0REFERENCES 10.2

11.0LIST OF PREPARERS 11.1

12.0APPENDICES..... 4

LIST OF APPENDICES

Appendix A Report Figures

Exhibit 1 Regional Map
Exhibit 2 Regional Topographic Map
Exhibit 3 Topographic Map
Exhibit 4 Assessor Parcel Map
Exhibit 5 Aerial Site Map
Exhibit 6 1957 Aerial Photo
Exhibit 7 1963 Aerial Photo
Exhibit 8 1982 Aerial Photo
Exhibit 9 1993 Aerial Photo
Exhibit 10 1999 Aerial Photo
Exhibit 11 2006 Aerial Photo
Exhibit 12 Soils
Exhibit 13 Slope Terrain Analysis
Exhibit 14 Hydrological Features
Exhibit 15 Land Use Map

Appendix B EDR Information

EDR Aerial Photo Decade package
EDR Radius Map with Geocheck
EDR Certified Sanborn Map Report
EDR Chain of Ownership Report Combo
EDR Environmental Lien Search Report
EDR City Directory Abstract
EDR Property Tax Information
EDR Historical Topographical Information

Appendix C Photo Log

Appendix D Interview Information

Appendix E Field Notes

Appendix F 2006 Phase I Report

1.0 Executive Summary

At the request of Targa Terminals, LLC. (Targa), TRC Solutions Inc. (TRC) has conducted a Phase I Environmental Site Assessment on the subject property which is located at 3028 Navy Drive in Stockton, California, San Joaquin County, wholly within the Port of Stockton District. The property is located adjacent to the San Joaquin River and several other industrial properties (Stockton West United States Geological Services (USGS) 7.5-minute quadrangle in Sections 8 and 17, Township 1 North, Range 6 East, M. D. B & M.). The site has an Assessor's Parcel Numbers (APN145-020-08 and 145-030-09). This environmental assessment was prepared specifically for Targa; its use by other parties is unintended.

TRC environmental site assessors performed their assessment of the subject property on November 2, 2011. At that time, surface property conditions and adjacent property activities were observed and recorded. Aerial photographs from 1957, 1963, 1982, 1993, 1999, and 2006 were accessed in order to assist in development of the site historical study.

The subject property consists of one single piece of property which has two semi-circlular, nearly triangular shaped components (appears like a backwards "C") composed primarily of dredge fill land and has been built up to be elevated above many nearby properties. The subject property totals 19 +/- acres. The site is encircled to the north, east, and west by a rail spur and to the south by the Pacific Ethanol property. Adjacent to the site, are the following properties: to the north lies the Stockton Police Department gun and pistol training range; to the northeast, the Tesoro, Nu Star, Buckeye and Shell oil terminal sites; immediately to the south (on the same piece of property) is the Pacific Ethanol production facility; and to the west lies a vacant lot which leads to the San Joaquin River (the San Joaquin River surrounds the property on the west, northwest, and southwest. All access points to the San Joaquin River are at least one hundred feet away and require crossing other properties). Finally, the Stockton Waste Water Treatment Plant is located to the southwest (about one quarter mile away). The terrain is primarily flat throughout the entire property, however; the property is built-up above surrounding features, which provides a natural barrier (similar to a canal or levee system) between the subject property and all adjoining properties.

Previously taken soil samples of the site have demonstrated that "metal concentrations in the dredge sediments are below the screening levels established in the California Human Health Screening Levels." Furthermore, the sampling investigation "indicated that the dredge sediments do not pose a 'significant threat' to groundwater." (2006 Phase I ESA completed by BSK Associates). No environmental concerns were identified on the subject property.

TARGA TERMINALS, LLC, PORT OF STOCKTON (3028 NAVY DRIVE)
TERMINALLING AND STORAGE FACILITY SITE
Phase I Environmental Site Assessment
November 2011

TRC is a professional environmental consulting firm with experience in regulatory compliance and environmental planning, environmental engineering and geology. TRC members are State of California Registered Environmental Assessors, Registered Engineers and Geologists. This Phase I Environmental Site Assessment is based on the foregoing and subject to the limitations, qualifications, exceptions and assumptions set forth herein.

2.0 Introduction

2.1 PURPOSE

TRC was retained by Targa to conduct a Phase I Environmental Site Assessment (ESA) at the property proposed for terminalling and storage purposes, located within the Port of Stockton, at 3028 Navy Drive, and consisting of Assessor's Parcel Number (APN) 145-020-08 and 145-030-09 (subject property). This Phase I ESA has been prepared by TRC in accordance with American Society for Testing and Materials (ASTM) E 1527-05 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* and is intended for the sole use of the Targa.

The purpose of this assessment process is to identify *Recognized Environmental Conditions (RECs)* in connection with the property, as defined in the ASTM E 1527-05 standard. The term *Recognized Environmental Conditions* is defined by ASTM as "the presence or likely presence of any hazardous substances or petroleum products on a property under the conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or in the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws." The term *Recognized Environmental Conditions* is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. (ASTM E 1527-05 §3.3.74).

Additionally, this Phase I ESA will determine the existence of any *Material Threats* as defined in ASTM E 1527-05. *Material Threats* are "physically observable or obvious threat which is reasonably likely to lea tot a release that, in the opinion of the *environmental professional*, is threatening and might result in impact to public health or the environment." (ASTM E 1527-05 §3.3.52).

2.2 SCOPE OF INVESTIGATION/SERVICES

The work was completed by environmental professionals and has been performed in accordance with our proposal dated July, 2011. The Phase I ESA consisted of the following tasks:

- Property and vicinity reconnaissance.
- Description of historical site conditions.

- Description of physical setting.
- Interviews with property owner representatives and public agency personnel
- Review of environmental database and regulatory agency records.
- Preparation of a report summarizing findings, opinions and conclusions.

2.3 SPECIAL TERMS AND CONDITIONS

There are no special terms of conditions associated with the performance of this assessment.

2.4 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

This Phase I ESA addresses only the surface features observed during the one-day field investigation, an aerial photograph review, and interviews with selected persons knowledgeable of the history or past operations of the subject property. Boreholes were not drilled for the purpose of obtaining subsurface samples, nor were surface samples gathered for analysis. A full regulatory audit of all permits and practices regarding the subject property and conditions regarding the adjacent properties was not conducted and were beyond the scope of this assessment. Investigations for the presence of asbestos, lead paint, and radon were outside the scope of the site inspection.

2.4.1 Accuracy and Completeness

TRC makes no guarantees as to the accuracy or completeness of information obtained from others. It is possible that information exists beyond the scope of this investigation, or that information was not provided to TRC. Additional data subsequently provided, discovered, or produced may alter findings or conclusions made in this Phase I ESA report. TRC is under no obligation to update this report to reflect such subsequent information. The findings presented in this report are based upon the information reasonably available and by site conditions observed at the time of this assessment. Conditions may have changed since that time and the findings and conclusions of this report are not meant to be indicative of future conditions at the subject property. This report may not be relied on by any party other than the client with whom TRC has contracted to prepare this report.

2.4.2 Warranties and Representations

This report does not warrant against: (1) operations or conditions that were not in evidence from visual observations or historical information obtained; (2) conditions that could only be determined by physical sampling or other intrusive investigation techniques; or (3) locations other than the client-provided addresses and/or legal parcel description or information on off-site locations (with possible impact on the subject property) not published in available records.

2.4.3 Continued Validity/User Reliance

This report is presumed to be valid for a period of 180 days from its completion, until Targa obtains specific information that may materially alter a Finding, Conclusion or Opinion in this report, or until Targa is notified by TRC that it has obtained specific information that materially alters a Finding, Conclusion or Opinion in this report.

2.4.4 Significant Assumptions

TRC assumes that all information pertaining to the subject property provided in interviews with the current owner's representative and in historical information obtained from standard sources is accurate and complete.

2.5 LIMITING CONDITIONS AND METHODOLOGY USED

TRC encountered no conditions which limited the performance of this assessment. The methodology included performance of ASTM-recommended research, interviews, and inspections as described in Standard Practice E-1527-05.

3.0 Site Description

3.1 LOCATION AND LEGAL DESCRIPTION

The subject property is wholly located within the Stockton Port District, City of Stockton, within San Joaquin County, as shown in Exhibit 1. The subject property includes a total of approximately 19 +/- acres in one parcel located in the (Stockton West quadrangle in Sections 8 and 17, Township 1 North, Range 6 East, M. D. B & M as shown in Exhibit 2 and consists wholly of dredge fill deposits from the San Joaquin River.

The subject property is identified as portions of San Joaquin County Parcel Numbers (APN) 145-020-08 and 145-030-09. The Assessor's Parcel Map for the subject property is included as Exhibit 4. The subject property is classified as "Port Zone" (PT) (an industrial use classified specifically for the Port of Stockton District) by the Stockton General Plan and Stockton Zoning Ordinance. STOCKTON MUNI CODE §16.16.020(c)(3). The PT zoning classification designates areas suitable for "the operation of port facilities, including wharves, dockage, warehousing, and related port facilities." *Id.*

3.2 SITE AND VICINITY CHARACTERISTICS

The subject property is a portion of a single parcel which consists of two semi-circle, nearly triangular shaped figures and is situated immediately north of the existing Pacific Ethanol production facility (an additional portion of the property—not included as part of this Phase I ESA). The subject property totals 19+/- acres. The subject property is encircled to the north, east, and west by an elevated rail spur and to the south by the Pacific Ethanol production facility. Adjacent to the subject property, are the following properties: to the north lies the Stockton Police Department gun and pistol training range; to the east, the Tesoro, Nu Star, Buckeye and Shell terminals; to the south is the Pacific Ethanol production facilities; and to the west lies a vacant lot which leads to the San Joaquin River (several hundred feet away). The Stockton Waste Water Treatment Plant is located to the southwest (about one quarter mile away). The terrain is primarily flat throughout the entire property, however; the property is built-up above surrounding features, which provides a natural barrier (similar to a canal or levee structure) between the property and all adjoining properties. (Exhibit 13 Slope Terrain Analysis) Exhibits 6 through 11 are detailed site aerial photographs (at a scale of approximately 1:6,000) from 1957, 1963, 1982, 1993, 1999, and 2006.

In the 1957 aerial photo (Exhibit 6), the subject property appears heavily vegetated with exception of the northernmost point of the landscape. Access roads surround the entire subject property, however; no roads run throughout the subject property. The main access road runs north-south to the northeast of the subject property. The San Joaquin River surrounds the

subject property to the north, west, and south. Most nearby properties are vacant, unimproved lots. However; immediately east of the subject property, lies a property with over a dozen Above Ground Storage Tanks (ASTs) and several building structures. Most of the land south of the river is vacant. Across the river, most plots appear to be graded or smoothed.

In the 1963 aerial photo (Exhibit 7) shows the subject property has significantly less vegetation and the northern portion of the subject property appears to have been partially filled and graded upon removal of the vegetation. Adjacent properties seem virtually unchanged.

In the 1982 aerial photo (Exhibit 8), the subject property appears to have vegetation (as demonstrated by the discoloration throughout the majority of the subject property). Significant changes are demonstrated in the properties to the west, as several ASTs were constructed on this property.

In the 1993 aerial photo (Exhibit 9), the subject property is much the same as shown in the 1982 photograph, having significant vegetation and no development it does; however, appear that two access roads (loops) were added in the northern portion of the subject property. Additional facilities were added to the property to the northeast of the subject property.

The 1999 aerial photo (Exhibit 10) is much the same as the 1993 photo, with limited physical changes to the subject property. Additional grading had occurred at the northern end of the subject property. Sites to the east and north of the subject property show additional construction (in the form of additional ASTs).

In the 2006 aerial photo (Exhibit 11) shows the subject property bare (dredge fill and nothing more) and with limited topographic variations. Additional construction is shown to the east (additional ASTs).

3.3 GEOLOGY AND HYDROLOGY

The subject property lies in the San Joaquin Valley, within the Stockton Port Distict, within the San Joaquin-Sacramento Delta. The subject property is located in the Great Valley Geomorphic Province. This area within the Great Valley is bounded by the Sierra Nevada Geomorphic Province to the east and the Coast Ranges Geomorphic Province to the west and south. The great valley consists of a wide, gently sloping valley filled in by erosion deposits from the mountain ranges that flank it (Cenozoic nonmarine sedimentary rocks and alluvial deposits). The Great Valley is filled with sedimentary deposits from the Sierra Nevada, which consist of sands, lesser silts, minor clays, and gravel. Soils generally encountered at the site are light brown to dark brown.

The Great Valley Geomorphic Province is a tectonically active area that has experienced several large earthquakes in historic time, most notably the Kern County earthquake of 1952.

The project is located outside any Alquist-Priolo Earthquake Fault Zones issued by the California Division of Mines and Geology. No known active faults are found in the vicinity of the subject property. Active faults are defined by the Alquist-Priolo Special Studies Zones Act of 1972 as any fault that has showed evidence of surface displacement during Holocene time (the past 10,000 years).

The subject property is located within the San Joaquin River hydrologic region, which consists of gently sloping terrain draining into either manmade canals or partially modified streams. The subject property is likely to drain into the channel which has been created to elevate the property above surrounding features. It is unlikely that pollutants would flow from the channel surrounding the subject property into the San Joaquin River, as any such pollutant would be required to flow from the channel, traverse several hundred yards of elevated lands, and then into the River. No water erosion features are evident on site.

3.4 DESCRIPTION OF STRUCTURES, ROADS, AND OTHER IMPROVEMENTS ON THE SUBJECT PROPERTY

The subject property is currently vacant, compiled of dredge from the San Joaquin River, and has limited vegetation (Appendix C Photo Record). Immediately south of the subject property lies the Pacific Ethanol production facilities. The subject property is surrounded on the north side by a drainage ditch improvement which was designed to carry stormwater runoff from the subject property to a stormwater inlet located on the eastern portion of the subject property which conveys stormwater under the rail spur and out to Navy Drive. A gravel access road for the rail spur has been developed on the perimeter of the subject property with the exception of the common property line with Pacific Ethanol production facilities. There is a 60kV PG&E overhead power line which crosses the middle of the subject property with several utility poles. A sewer line connecting Pacific Ethanol with the sewer trunk line on Navy Drive with associated sewer manholes are found on the eastern end of the subject property. A natural gas line also traverses the subject property from north to south to service Pacific Ethanol.

3.5 INFORMATION REPORTED BY USER REGARDING ENVIRONMENTAL LIENS OR SPECIALIZED KNOWLEDGE OR EXPERIENCE

No additional information regarding environmental liens or specialized knowledge of environmental conditions was acquired by TRC during this investigation. An environmental lien report did not find any environmental liens on the subject property. Inquiry of Pacific Ethanol and the Stockton Port District employees (Jason P. Cashman and Steve Escobar) also produced no information regarding environmental liens or conditions.

3.6 CURRENT USES OF THE SUBJECT PROPERTY

The subject property is a vacant industrial lot.

3.7 PAST USES OF THE SUBJECT PROPERTY

Historically, the subject property has been a vacant, unimproved lot, owned by the Stockton Port District.

3.8 CURRENT AND PAST USES OF ADJOINING PROPERTIES

The past uses of adjoining properties has been industrial and institutional land uses. Immediately to the south of the subject property is Pacific Ethanol, and is currently being used as an ethanol creation, distillation, storage, and shipment facility. Adjacent to the site, are the following properties: to the north lies the Stockton Police Department gun and pistol training range (which has been in use for nearly 50 years and has had no known hazardous releases); to the east, the Tesoro, Nu Star, Buckeye and Shell terminals (these sites have come under scrutiny related to the release of environmental pollution as is demonstrated in the EDR findings and on the chart in section 5.1); to the south is the Pacific Ethanol property (a relatively new operation); and to the east lies a vacant lot which leads to the San Joaquin River (several hundred feet away). The City of Stockton Waste Water Treatment Plant is located to the southeast (about one quarter mile away across the vacant lots and the San Joaquin River). To the west lies Rough and Ready Island (across the San Joaquin River).

4.0 User Provided Information

4.1 REQUESTED DOCUMENTS AND INFORMATION

The ASTM E1527 specifies that the property owner, key Site Manager, and the User provide any helpful documents that may be available. In order to facilitate, and document, the collection of this information, TRC has interviewed and requested information from Mr. Paul Koehler (Vice President of Pacific Ethanol) and Mr. Steve Escobar (Deputy Port Director, Real Estate and Development for the Port of Stockton).

The following documents and information were requested from Mr. Koehler and Mr. Escobar; however, neither Mr. Koehler, nor Mr. Escobar was able to provide information on most of the following subjects:

- Environmental site assessment or audit reports
- Environmental permits or hazardous waste generator notices/reports. Registrations for aboveground and underground storage tanks
- Septic systems, oil wells, or water wells
- Material Safety Data Sheets; Community Right to Know Plans; or Safety, Preparedness and Prevention Plans; Spill Protection Countermeasures and Control Plans
- Reports regarding Hydrologic conditions on the subject property or surrounding area. Notices or Other Correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property
- Hazardous waste generator reports
- Geotechnical Studies
- Proceedings regarding hazardous substances and petroleum products including any pending, threatened or past: litigation; administrative proceedings; or notices from any governmental entity regarding possible violations of environmental laws or other possible liabilities related to hazardous substances or petroleum products.

The ASTM E1527 outlines specific User responsibilities. This information will help identify the possibility of RECs in connection with the subject property. These tasks do not identify the

possibility of RECs in connection with the subject property. These tasks do not require the technical expertise of an Environmental Professional and are generally not performed by environmental professionals performing a Phase I ESA. The User may perform them. In general the User should make TRC aware of information they have regarding title records, environmental liens, or specialized knowledge.

4.2 TITLE RECORDS

The Title Report was reviewed and title to the subject property is currently vested in the Stockton Port District.

4.3 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

TRC retained Environmental Data Resources (EDR) to conduct a search for environmental liens imposed on the subject property. No environmental liens were in existence (Appendix B).

4.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

TRC's opinion is there are no significant environmental issues that justify the reduction of lease price on the property.

4.5 OWNER, PROPERTY MANAGER AND OCCUPANT INFORMATION

The entire subject property is owned by the Stockton Port District. The subject property was Quitclaim Deeded from the U.S. Army on the 1st of August, 1956, and the U.S. Air Force on the 23rd of June, 1967 to the ownership of the Stockton Port District.

5.0 Records Review

The purpose of the records review is to obtain and review records that will help identify *Recognized Environmental Conditions* (RECs) in connection with the subject property. Environmental Data Resources, Inc. (EDR) performed a search of regulatory databases to determine whether hazardous materials releases have occurred on properties within a given radius of the subject property. The search radii varied for each regulatory database, from a 1/8-mile radius to a 1-mile radius, as specified in the ASTM E1527-05 standard. A detailed description of the sites identified by EDR, a radius map, and a description of the databases are provided in Appendix B. A brief summary of the results of the database searches is provided below. Note that EDR searched all databases required by the ASTM standard, plus some additional databases not required by ASTM.

5.1 STANDARD ENVIRONMENTAL RECORDS SOURCES

As required by Standard Practice E-1527 7.2.1, the following records were reviewed by obtaining an EDR Radius Map with GeoCheck from Environmental Data Resources, Inc. Supporting documentation, reports and notes for this section are in Appendix B.

Standard Environmental Record Sources

Database	Distance from subject property (Mi.)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 – 1	>1
ENVIRONMENTAL RECORDS						
Federal NPL site list						
NPL	1.250	0	0	0	0	0
Proposed NPL	1.250	0	0	0	0	0
NPL LIENS	0.250	0	0	NR	NR	NR
Federal Delisted NPL site list						
Delisted NPL	1.250	0	0	0	0	0
Federal CERCLIS list						
CERCLIS	0.750	0	0	1	1	NR
Federal Facility	1.250	0	0	0	0	0
Federal CERCLIS NFRAP site List						
CERC-NFRAP	0.750	0	0	0	0	NR
Federal RCRA CORRACTS facilities list						

CORRACTS	1.250	0	0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list						
RCRA-TSDF	0.750	0	0	0	0	NR
Federal RCRA generators list						
RCRA-LQG	0.500	2	1	1	NR	NR
RCRA-SQG	0.500	5	0	1	NR	NR
RCRA-CESQG	0.500	0	0	0	NR	NR
Federal institutional controls / engineering controls registries						
US eng controls	0.750	0	0	0	0	NR
US ins control	0.750	0	0	0	0	NR
Federal ERNS list						
ERNS	0.250	37	5	NR	NR	NR
State- and tribal - equivalent NPL						
RESPONSE	1.250	0	0	0	2	2
State/tribal CERCLIS equivalent						
ENVIROSTOR	1.250	3	0	1	4	3
State and tribal landfill and/or solid waste disposal site lists						
SWF/LF	0.750	0	0	0	1	NR
State/tribal leaking storage tanks						
LUST	0.750	2	1	1	4	NR
SLIC	0.750	9	3	4	6	NR
Indian LUST	0.750	0	0	0	0	NR
State and tribal registered storage tank lists						
UST	0.500	6	2	3	NR	NR
AST	0.500	3	2	2	NR	NR
INDIAN UST	0.500	0	0	0	NR	NR
FEMA UST	0.500	0	0	0	NR	NR
State and tribal registered storage tank lists						
UST	0.500	6	2	3	NR	NR
AST	0.500	3	2	2	NR	NR
INDIAN UST	0.500	0	0	0	NR	NR
FEMA UST	0.500	0	0	0	NR	NR
State and tribal voluntary cleanup sites						
VCP	0.750	0	0	1	0	NR
INDIAN VCP	0.750	0	0	0	0	NR

According to the EDR Report, no aboveground or underground tanks have ever been located on the subject property. No other areas of environmental concern were identified by the EDR Report on the subject property or immediate surrounding properties.

Additional Environmental Record Sources

Local Brownfield lists						
US BROWNFIELDS	0.750	0	0	0	0	NR
Local Lists of Landfill / Solid Waste Disposal Sites						
DEBRIS Region 9	0.750	0	0	0	0	NR
ODI	0.750	0	0	0	0	NR
WMUDS/SWAT	0.750	0	1	0	0	NR
SWRCY	0.750	0	0	0	0	NR
HAULERS	0.250	0	0	NR	NR	NR
INDIAN ODI	0.750	0	0	0	0	NR
Local Lists Hazardous waste / Contaminated Sites						
US CDL	0.250	0	0	NR	NR	NR
HIST Cal-Sites	1.250	0	0	0	2	2
SCH	0.500	0	0	0	NR	NR
Toxic Pits	1.250	0	0	0	0	0
CDL	0.250	0	0	NR	NR	NR
US HIST CDL	0.250	0	0	NR	NR	NR
Local Lists of Registered Storage Tanks						
CA FID UST	0.500	6	1	2	NR	NR
HIST UST	0.500	8	1	1	NR	NR
SWEEPS UST	0.500	8	1	2	NR	NR
Local Land Records						
LIENS 2	0.250	0	0	NR	NR	NR
LUCIS	0.750	0	0	0	0	NR
LIENS	0.250	0	0	NR	NR	NR
DEED	0.750	0	0	0	0	NR
Records of Emergency Release Reports						
HMIRS	0.250	1	0	NR	NR	NR
CHMIRS	0.250	8	5	NR	NR	NR
LDS	0.250	0	2	NR	NR	NR

5.2 PHYSICAL SETTING SOURCES

As required by Standard Practice E-1527-7.23, the following records were reviewed:

Physical Setting Sources

Record	Searched?	If not, why not?	Potential for Recognized Environmental Conditions?
Standard Source USGS Quad maps	Yes		No
Non-Standard Source San Joaquin County Environmental Health Services Department	Yes		No
Non-Standard Source San Joaquin County Fire Department	Yes		No

5.3 HISTORICAL USE INFORMATION

The objective of consulting historical sources is to develop a history of the previous uses or occupancies of the subject property and surrounding area in order to identify those uses or occupancies that are likely to have led to RECs in connection with the subject property.

As required by Standard Practice E-1527-7.3, historical records were reviewed by obtaining an EDR Radius Map with GeoCheck from Environmental Data Resource, Inc. Supporting documentation, reports, and notes for this section are in Appendix A. Aerial photographs, included as Exhibits 5 through 10, were reviewed and the findings are discussed in Section 3.2.

Historical Sources

Record	Searched?	If not, why not?	Potential for Recognized Environmental Conditions?
Standard Sources- 1957-present Aerial Photographs dates (1957,1963,1970, 1982,	Yes		Yes

1993, 1999, 2005, 2006) Fire insurance map Chain-of-title Property tax files	 No No No	 None found Outside scope	 No
Standard Sources- prior to 1940 Aerial Photos	No	None available	
Other Sources Interview with owner/lessee	Yes		No

5.4 ADDITIONAL RECORD SOURCES

No additional records were searched for this environmental assessment.

6.0 Interviews

According to the review of the historic aerial photographs, the site was utilized for agriculture. The current property owner's representative, Mr. Steve Escobar, was interviewed concerning the subject property.

6.1 INTERVIEWS WITH OWNER'S REPRESENTATIVE

The subject property was a vacant, unimproved lot at the time of TRC's site visit. TRC staff interviewed the property owner's (Stockton Port District) representative, Mr. Steve Escobar and the representative of the lessor of the property immediately south of the subject property who made some improvements on the subject property such as the stormwater ditch, and rail spur (Pacific Ethanol), Mr. Paul Koehler. According to Mr. Escobar the property has remained vacant and unimproved since the Stockton Port District acquired the land in 1956 and 1967 from the U.S. Army and U.S. Air Force (Mr. Koehler provided TRC with similar facts). The only substantial information that was gained from the interview with either Mr. Escobar or Mr. Koehler was the lack of any contamination concerns. The interview notes and questions are included in this report as Appendix B.

6.2 NEIGHBORING PROPERTY OWNER INTERVIEWS

TRC attempted to contact other adjacent property owners; however, neighboring property owners or their representatives were not available at the time of survey.

6.3 OTHER INTERVIEWS AND INFORMATION SOURCES

The San Joaquin County Environmental Health Services Department was contacted and interviewed regarding their knowledge about the subject property. Ms. Adrienne Ellsaesser, REHS, of the San Joaquin County Environmental Health Department (SJCEHD) was contacted concerning the subject property and surrounding area. According to Ms. Ellsaesser, the SJCEHD has no outstanding issues with the subject property.

7.0 Information from Site Reconnaissance and Reviews

The purpose of the site reconnaissance was to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the subject property. For this report, Brent L. Moore, CEP, REA, of TRC visited the property on November 2, 2011. The methodology used to inspect the site was to traverse and photograph the site on foot and record observations. Appendix E contains a checklist of observations required by Standard Practice E 15278.4 including, but not limited to, hazardous substances, solid wastes, stains, and odors. No inspection for asbestos, radon, or lead paint was conducted. In addition, no survey for gamma or alpha radiation or for other radionuclides was conducted. Appendix C contains a series of photographs that document conditions encountered during the site inspection as well as field notes.

7.1 HAZARDOUS SUBSTANCES IN CONNECTION WITH IDENTIFIED USES

No hazardous substances in connection with identified uses were observed on the property.

7.2 HAZARDOUS SUBSTANCES CONTAINERS AND UNIDENTIFIED SUBSTANCE CONTAINERS

No drums or other suspicious objects were observed on the subject property.

7.3 STORAGE TANKS

There were no storage tanks of any type on the subject property.

7.4 INDICATION OF POLYCHLORINATED BIPHENYLS

7.4.1 Polychlorinated Biphenyls (PCBs)

The subject property itself has limited overhead transmission/distribution lines (one single power pole). No transformers were visible and other sources, such as voltage regulators. It is highly unlikely that the subject property will present exposure risk to PCBs at an unhealthy rate.

7.5 INDICATIONS OF SOLID WASTE DISPOSAL

The subject property itself had no indications of solid waste disposal.

7.6 PHYSICAL SETTING ANALYSIS

There are no apparent environmental liabilities or potential threats to the subject property from adjacent properties and the surrounding area. The subject property is located on the northern 19+/- acres of the Pacific Ethanol lease area with the Stockton Port District, and it is quite unlikely that any hazardous materials will migrate from Pacific Ethanol, due to the manner in which the subject property is elevated above all surrounding properties (including a ditch which separates the subject property from the Pacific Ethanol facilities).

Notwithstanding the increased elevation on the subject property, leaving the potential of physical pollutant migration, there remains a limited potential for transient air pollutants to arrive on the subject property. Such pollutants would likely arrive from Pacific Ethanol, and could potentially arrive from the Stockton Waste Water Treatment Plant (this is highly unlikely and will be discussed in detail below). Notwithstanding the potential, albeit unlikely, for migratory air pollution, TRC does not believe a Phase II is warranted.

7.6.1 Hazardous Materials

The surrounding land use is limited to industrial use (as discussed above in Section 3.1, this is a PT zoned area). Because of the zoning regulations that restrict the Port properties, many of the surrounding properties store hazardous materials (including Pacific Ethanol). While it is possible that leaks of such materials can occur, it is highly unlikely that any such contamination will reach the subject property. As discussed previously, the subject property has been constructed from dredge fill from the San Joaquin River and has been built up above all surrounding properties; this canal/levee structure wholly encompasses the subject property and provides a natural barrier for any hazardous materials or substances.

7.6.2 Air Pollution

Air pollution poses a potential threat to the subject property for several reasons: (1) the property is within a highly industrial area; (2) there are no barriers surrounding/protecting the subject property; and (3) the Central Valley of California is windy location.

The two properties which pose potential air contamination/pollution threat are the Pacific Ethanol plant and the Stockton Waste Water Treatment Plant. Because Pacific Ethanol is located on the same property as the subject property, it is likely any air pollutant (Reactive Organic Gasses—ROGs and other pollution created by the ethanol distillation and storage process) that escapes will migrate towards the subject property. The current property does not possess fencing or any other protective measures that will keep such pollutants out. As such, it is likely that transient air pollution will be brought to the subject property from the Pacific Ethanol plant.

In addition to the potential air pollution from the Pacific Ethanol plant, the possibility for pollution form the Stockton Waste Water Treatment Plant exists. In particular, Volatile Organic Compounds (VOCs--aromatics such as benzene and toluene, and chlorinated compounds such as methylene chloride and chloroform) are common results of the wastewater treatment processes. VOCs, like ROGs and other airborne pollution, move freely within the atmosphere, and could potentially arrive at the subject site from the Waste Water Treatment Plant, especially in the event of high winds. It is, however, likely that any such pollution would be extremely limited, as the distance of the Waste Water Treatment Plant is nearly ¼ mile from the subject property. As such, any air pollution arriving at the subject property site would likely be very limited.

7.6.3 Transient Water Pollution

Transient water pollution typically occurs within ditches, canals, ground pools, etc. Because the entire property is surrounded by a canal/ditch, the potential for transient water pollution does exist. The only likely scenario of waterborne pollution reaching the subject property would be if Pacific Ethanol were to release ethanol or byproduct into the stream of water which ends in the subject property's canal. While such a release does pose potential threat to the subject property, it is highly unlikely that such contamination would ever reach the subject property because the canal surrounding the property is roughly seven feet high and a least as wide, it is unlikely that any water borne pollution will reach the subject property. With such height, it is highly unlikely that any water would ever rise above the canal and spill onto the subject property.

7.7 ADDITIONAL CONDITIONS OF CONCERN

The onsite investigation revealed there are no other potentially harmful conditions of concern on the subject property.

8.0 Findings, Conclusions, and Recommendations

TRC has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Standard Practice E-1527 of the subject property located within the Port of Stockton, in the City of Stockton, California (San Joaquin County). The subject property includes a total of approximately 19 acres +/- located wholly within the Stockton Port District, adjacent to the San Joaquin River and several industrial properties (Stockton West United States Geological Services (USGS) 7.5-minute quadrangle in Sections 8 and 17, Township 1 North, Range 6 East, M. D. B & M.).

8.1 RECOMMENDATIONS

TRC did not observe environmental conditions during the site reconnaissance that would have an adverse effect on the lease of the subject property that would adversely affect the development of the storage and terminal facility.

- TRC recommends that Targa continue forward with the lease of the subject property. Given the historical use of the property (unimproved, vacant lot), it is unlikely that a Phase II is warranted. Additionally, because the subject property is built up above surrounding properties, it is unlikely that fugitive pollutants would be found on the subject property. However, should Targa seek to determine, with a certainty, whether any such pollution exists on the subject property, a Phase II would be recommended.

9.0 Environmental Professional Statement

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in section 312.10 of 40 CFR 312.

I have the specific qualifications based on education, training, and experience to assess a Property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR part 312.

Simon Peter Serrano, Esq, LLM
Project Manager/Regulatory Compliance Specialist

Brent L. Moore, CEP, REA
Registered Environmental Assessor
State of California No. 07978
Expiration Date: June 30, 2012

Registered Environmental Assessor I
BRENT L. MOORE
REA I - 07978
Expires: 6/30/2012
STATE OF CALIFORNIA

10.0 References

The following documents, maps or other publications may have been utilized specifically in the preparation of this Phase I ESA Report or generally in the development of the report format. References to specific documents are also provided in appropriate sections of the report.

American Society of Testing and Materials, 1994, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process: Annual book of ASTM Standards, Designation E-1527-05

Environmental Data Resources, Inc., Radius Map with GeoCheck / Site Assessment Reports

Escobar, Steve, Personal Interview, Port of Stockton: Deputy Port Director, Real Estate and Development November 7, 2011 11:15 AM

Koehler, Paul, Personal Interview, Pacific Ethanol: Vice President, November 7, 2011 11:45 AM

United States Department of Agriculture, Soil Conservation Service, Soil Surveys

United States Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory Map 1940, 1945, 1950, 1955, 1960, 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005 city directory 1964, 1970, 1984, 1995 USDA aerial photo

The following web sites have been accessed to obtain information used in the preparation of this Phase I ESA Report.

Bedrock Geology - http://geology.about.com/od/stategeologicmaps/

Geologic Provinces - http://www2.nature.nps.gov/geology/usgsnps/province/province.html

Soils Reference - http://soils.usda.gov/

State and Local Government Records - http://www.statelocalgov.net/index.cfm

State Radon Levels - http://radon.com/radon/radon_map.html

Tax and Property Records - http://www.netronline.com/public_records.htm

Wetlands Maps - http://wetlandsfws.er.usgs.gov/

11.0 List of Preparers

SIMON PETER SERRANO, ESQ, LLM

Project Manager/Regulatory Compliance Specialist

Education:

BA Italian Studies, University of California, Davis, 2004

Juris Doctorate, Florida Coastal School of Law, 2009

LLM, Environmental Law, Vermont Law School, 2010

Registrations:

Member of Bar # 4120, State of Vermont

Member of Bar #75105, State of Florida

Training:

CEQA Advanced Workshop Series, Association of Environmental Professionals, Sacramento, California, 2011

40-Hour Hazardous Waste Operations Training, Network Environmental Systems Inc., Sacramento, California, 2011

8-Hour Hazardous Waste Operations Refresher, 2011

First Aid and CPR, 2011

Introduction:

As a Project Manager, Mr. Serrano has extensive experience with environmental impact assessments, project management, permitting, and consulting. Mr. Serrano provides consulting and management services that include: remedial investigations, feasibility studies, work plans, public participation, remedial actions, monitoring, and supervision. Mr. Serrano is an expert in Environmental Site Assessment and implementing the Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process issued by the American Society for Testing and Materials (ASTM Standard Practice E1527-05) and the U.S. EPA Final Rule on

"All Appropriate Inquiries Standards." Mr. Serrano has conducted Phase I ESA's for private sector and government clients at diverse sites throughout the Western United States. Mr. Serrano serves oversees due diligence investigations regarding the potential for hazardous substance liabilities.Mr. Serrano coordinates scientific support services for CERCLA projects encompassing remedial investigations, feasibility studies, implementation of waste treatment alternatives and on-site remedial actions. He has experience managing and supervising a variety of diverse science tasks in support of commercial contracts. He facilitates the use of innovation and a risk-based approach to environmental cleanup, where appropriate. In addition to supervisory and field duties, develops and evaluates data quality objectives, matrix-specific field sampling techniques, analytical testing protocols, scientific data acquisition, validation and reporting systems, and QA/QC plans. Mr. Serrano is also an expert in the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) with several years of management and environmental consulting experience.

Principal areas of responsibility for this Phase I ESA report: Project Management, Property Reconnaissance and Report Preparation.

BRENT L. MOORE, REA, CEP

Environmental Scientist / Principal

Education:

MS, Geography-Resource Management, Brigham Young University, Provo, Utah

BS, Geography-Planning, Brigham Young University, Provo, Utah

BA, Public Administration, Brigham Young University, Provo, Utah

Registrations:

State of California: Registered Environmental Assessor, CA #07978

The Academy of Board Certified Environmental Professional, Certification #07040406

Training:

Naturally Occurring Asbestos Hazards, El Dorado County Air Quality Management District, El Dorado County, California, 2007

CEQA Advanced Workshop Series, Association of Environmental Professionals, Sacramento, California, 2007

40-Hour Hazardous Waste Operations Training, 2004

8-Hour Hazardous Waste Operations Refresher, 2011

First Aid and CPR, 2011

Confined Space Entry and other safety training

DOT Training for Employees Managing /Transporting Hazardous Materials

Introduction:

Mr. Moore is an expert in Environmental Site Assessment and implementing the Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process issued by the American Society for Testing and Materials (ASTM Standard Practice E1527-05) and the U.S. EPA Final Rule on "All Appropriate Inquiries Standards." Mr. Moore has conducted Phase I ESA's for private sector and government clients at diverse sites throughout the Western United States. Mr. Moore coordinates scientific support services for CERCLA projects encompassing remedial investigations, feasibility studies, implementation of waste treatment alternatives and on-site remedial actions. He has experience managing and supervising a variety of diverse science tasks in support of EPA, USACE/ TERC, Navy RAC, and commercial contracts. He provides project-specific risk management consulting support to major government and industrial clients. He facilitates the use of innovation, and a risk-based approach to environmental cleanup, where appropriate. In addition to supervisory and field duties, he develops and evaluates data quality objectives, matrix-specific field sampling techniques, analytical testing protocols, scientific data acquisition, validation and reporting systems, and QA/QC plans. Mr. Moore is also an expert in the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) with twenty-five years experience in management and environmental consulting experience.

Principal areas of responsibility for this Phase I ESA report: Project Management, Property Reconnaissance and Report Preparation.

12.0 Appendices

APPENDIX A

Exhibits

APPENDIX B

ASTM Radius Report

Historical Aerial Photographs

Sanborn Map Search

Environmental Lien

Chain of Title

APPENDIX C

Subject Property Photo Log

APPENDIX D

Interview Documentation

APPENDIX E

Field Notes

APPENDIX F

2006 Phase I

APPENDIX “A”: MAP EXHIBITS

EXHIBIT 1 REGIONAL MAP

EXHIBIT 2 REGIONAL TOPOGRAPHIC MAP

EXHIBIT 3 TOPOGRAPHIC MAP

EXHIBIT 4 ASSESSOR PARCEL MAP

EXHIBIT 5 AERIAL SITE MAP

EXHIBIT 6 1957 AERIAL PHOTO

EXHIBIT 7 1963 AERIAL PHOTO

EXHIBIT 8 1982 AERIAL PHOTO

EXHIBIT 9 1993 AERIAL PHOTO

EXHIBIT 10 1999 AERIAL PHOTO

EXHIBIT 11 2006 AERIAL PHOTO

EXHIBIT 12 SOILS

EXHIBIT 13 SLOPE TERRAIN ANALYSIS

EXHIBIT 14 HYDROLOGICAL FEATURES

EXHIBIT 15 LAND USE MAP

EXHIBIT 16 UTILITIES MAP

TRC

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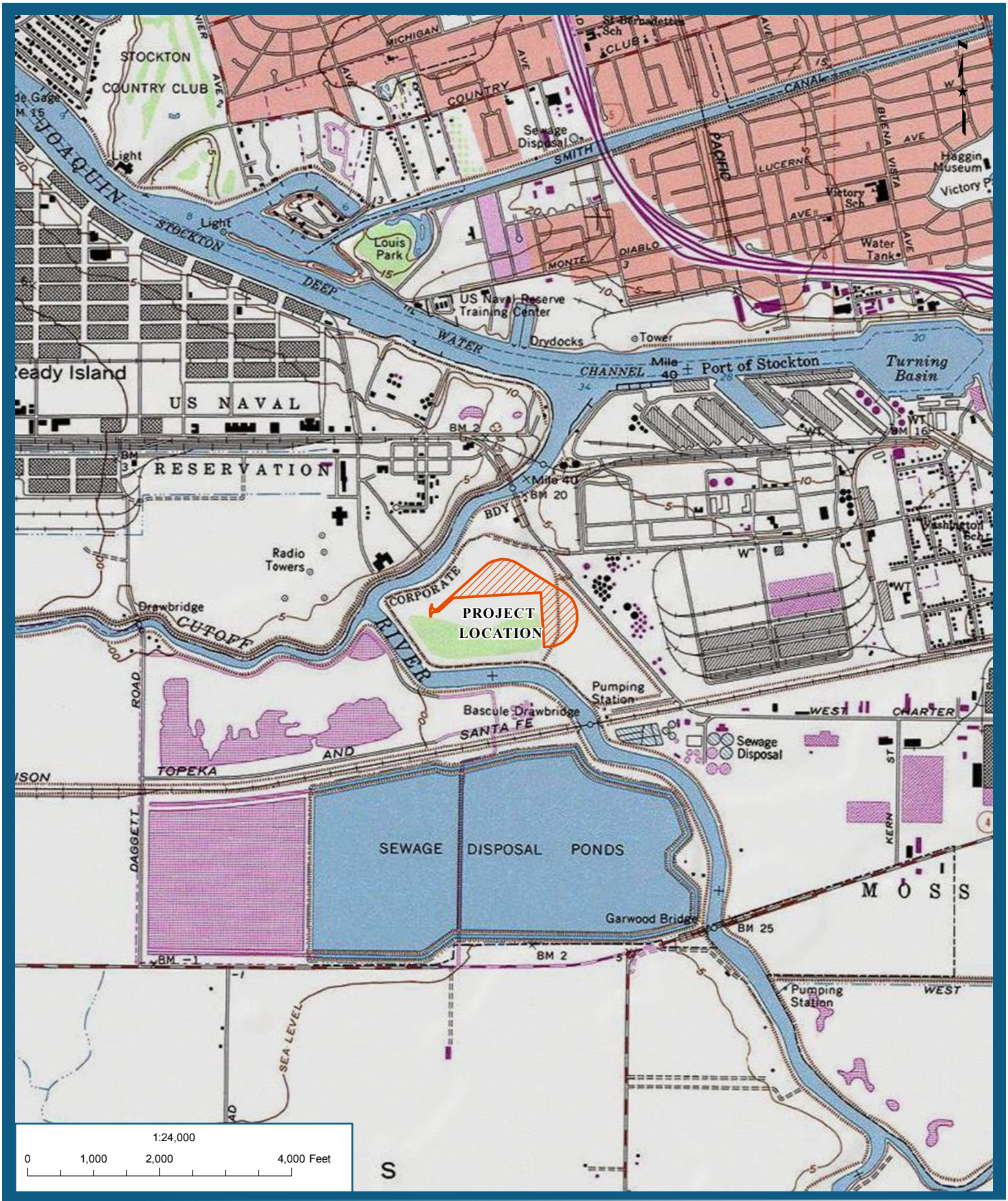
10680 White Rock Road, Suite 100
Rancho Cordova, CA 95670
Tel: 916.366.0632
Fax: 916.366.1501

Targa Terminals Phase I ESA, Stockton, CA

Exhibit 1

Regional Map



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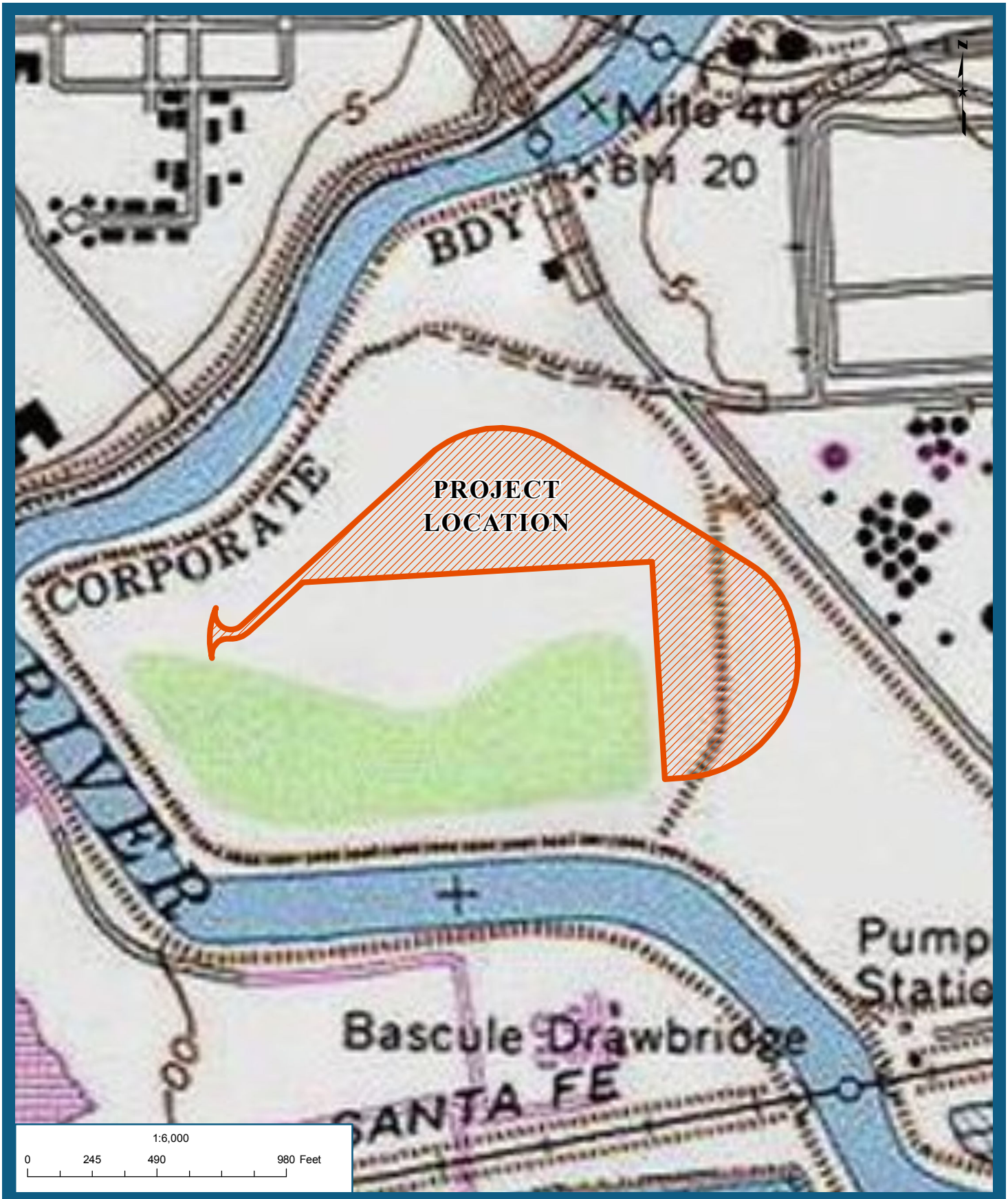
Targa Terminals Phase I ESA, Stockton, CA

Exhibit 2

Regional Topographic Map



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Targa Terminals Phase I ESA, Stockton, CA

Exhibit 3

Topographic Map

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Exhibit 4

Assessor Parcel Map

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Exhibit 5

Aerial Site Map

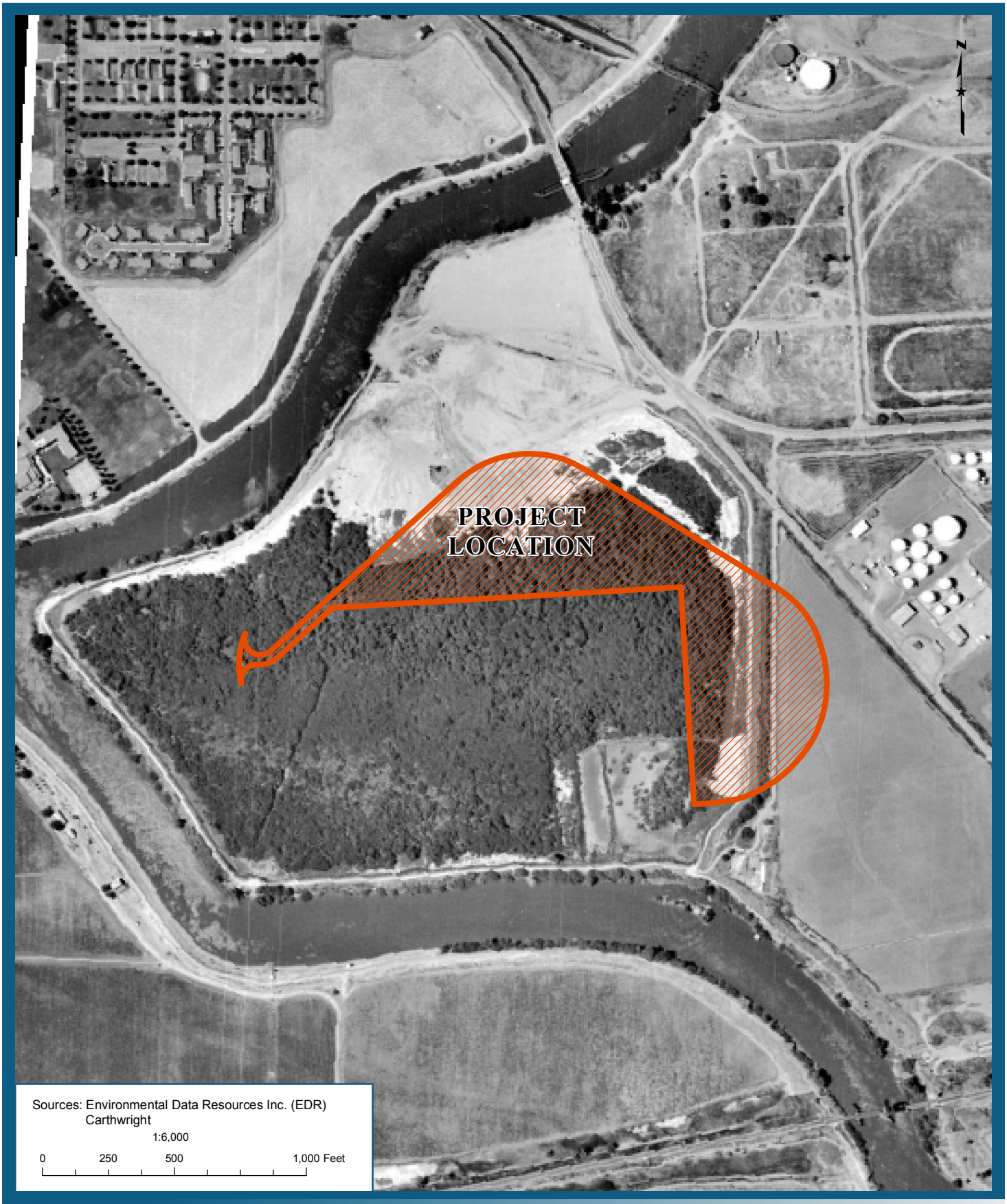

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Exhibit 6

1957 Aerial Photo

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Targa Terminals Phase I ESA, Stockton, CA

Exhibit 7

1963 Aerial Photo

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Targa Terminals Phase I ESA, Stockton, CA

Exhibit 8

1982 Aerial Photo

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Targa Terminals Phase I ESA, Stockton, CA

Exhibit 9

1993 Aerial Photo

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Exhibit 10

1999 Aerial Photo

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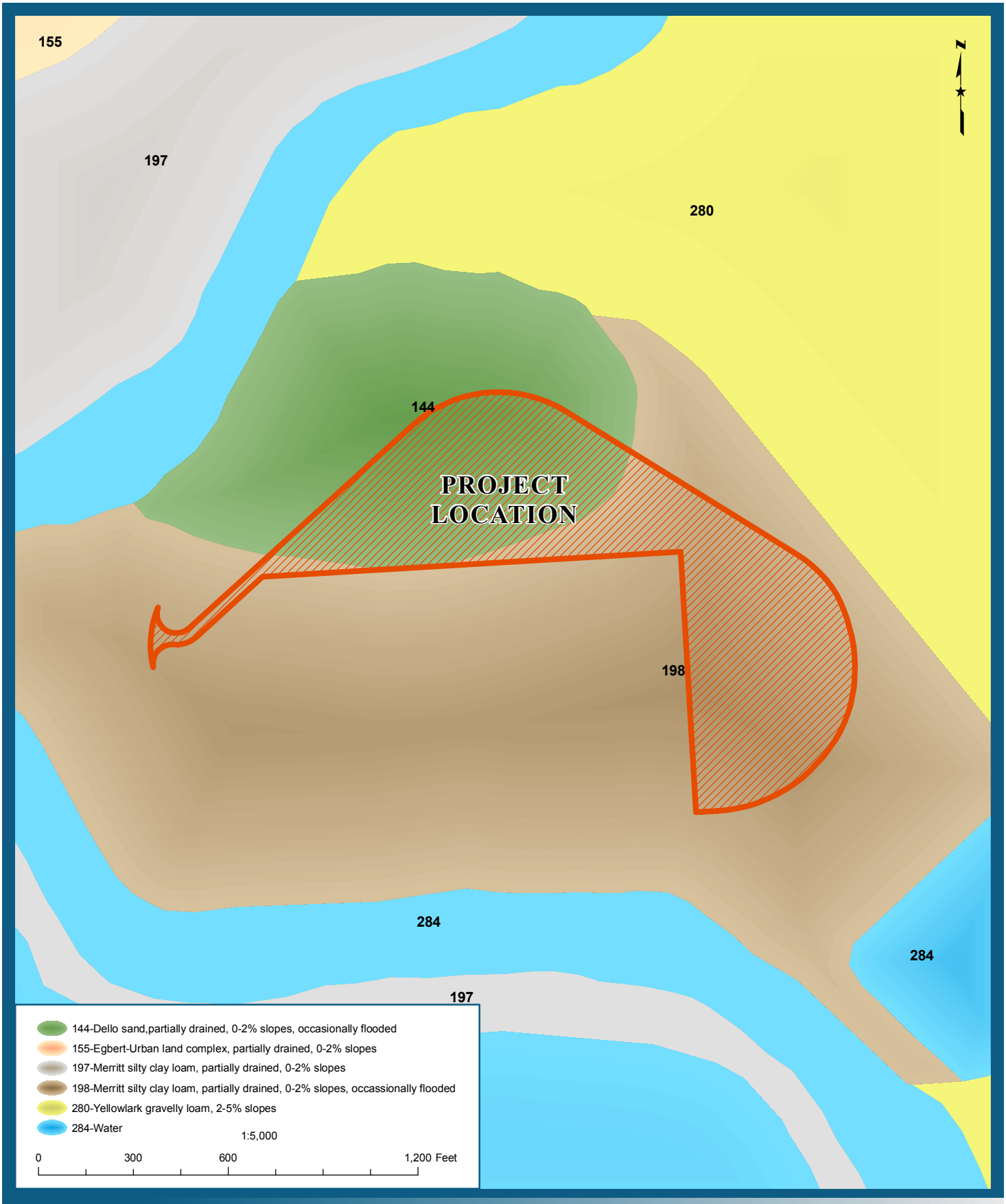
Exhibit 11

2006 Aerial Photo



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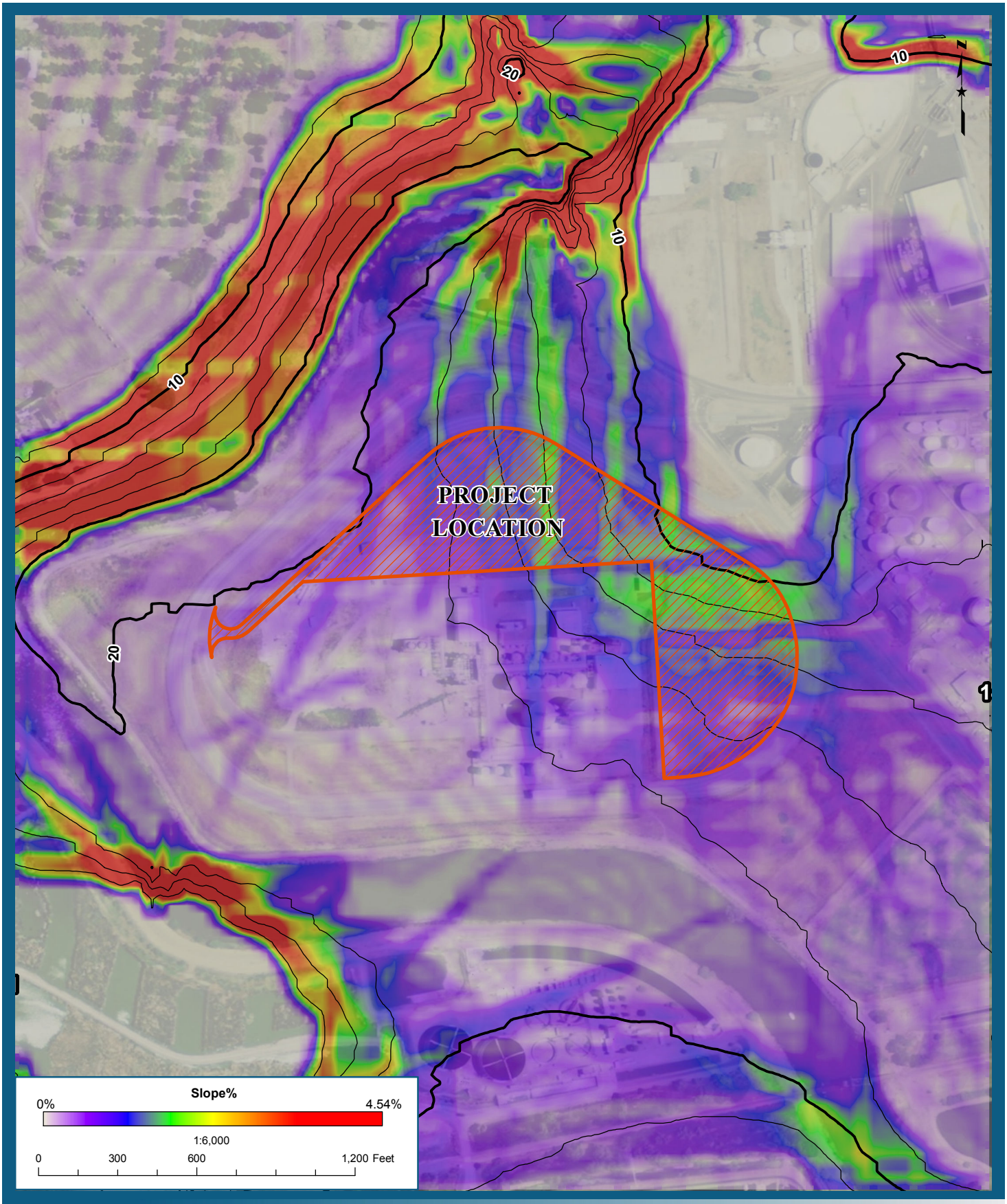
Fax: 916.366.1501

Targa Terminals Phase I ESA, Stockton, CA

Exhibit 12

Soils



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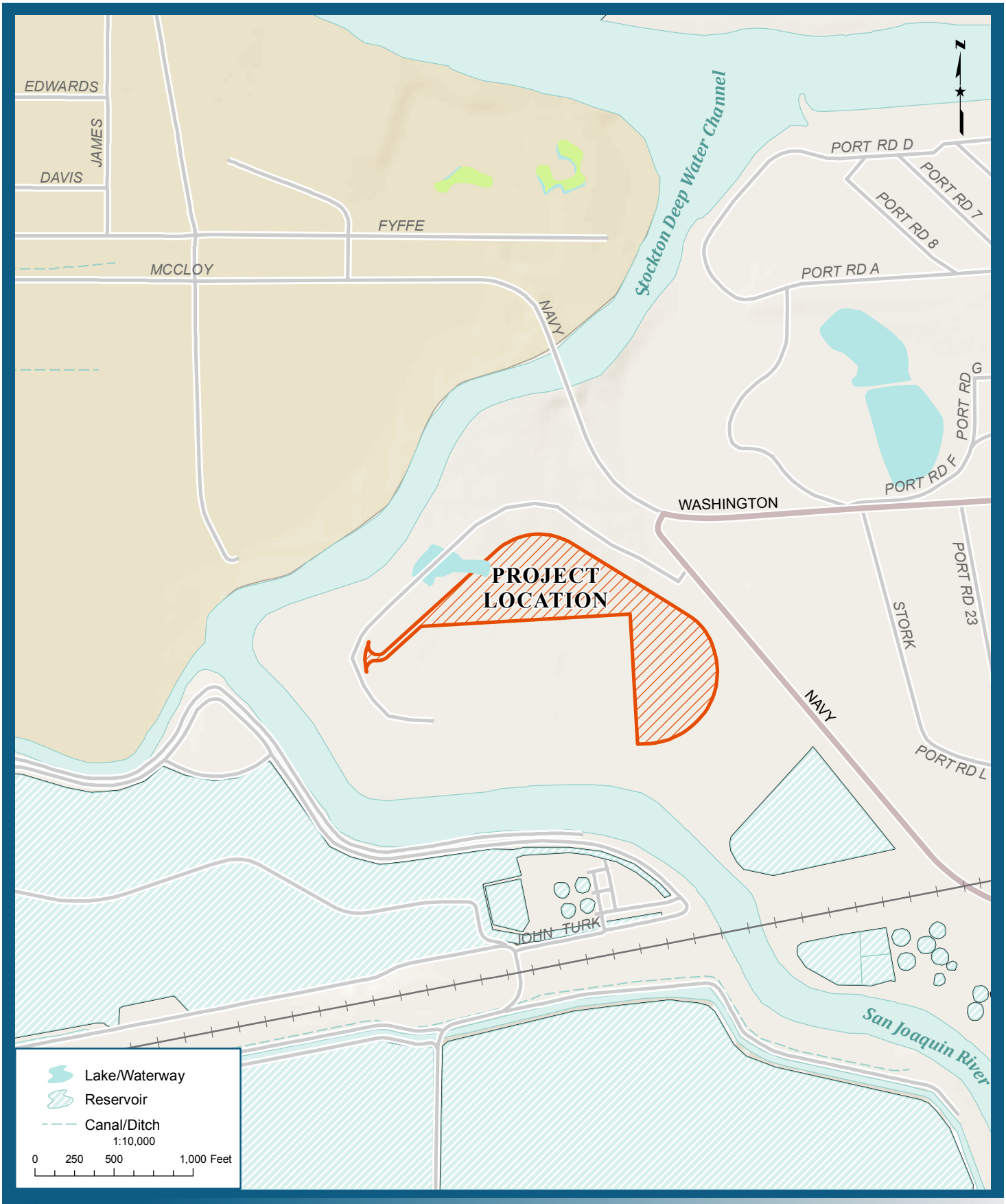
Targa Terminals Phase I ESA, Stockton, CA

Exhibit 13

Slope Terrain Analysis



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Targa Terminals Phase I ESA, Stockton, CA

Exhibit 14

Hydrological Features

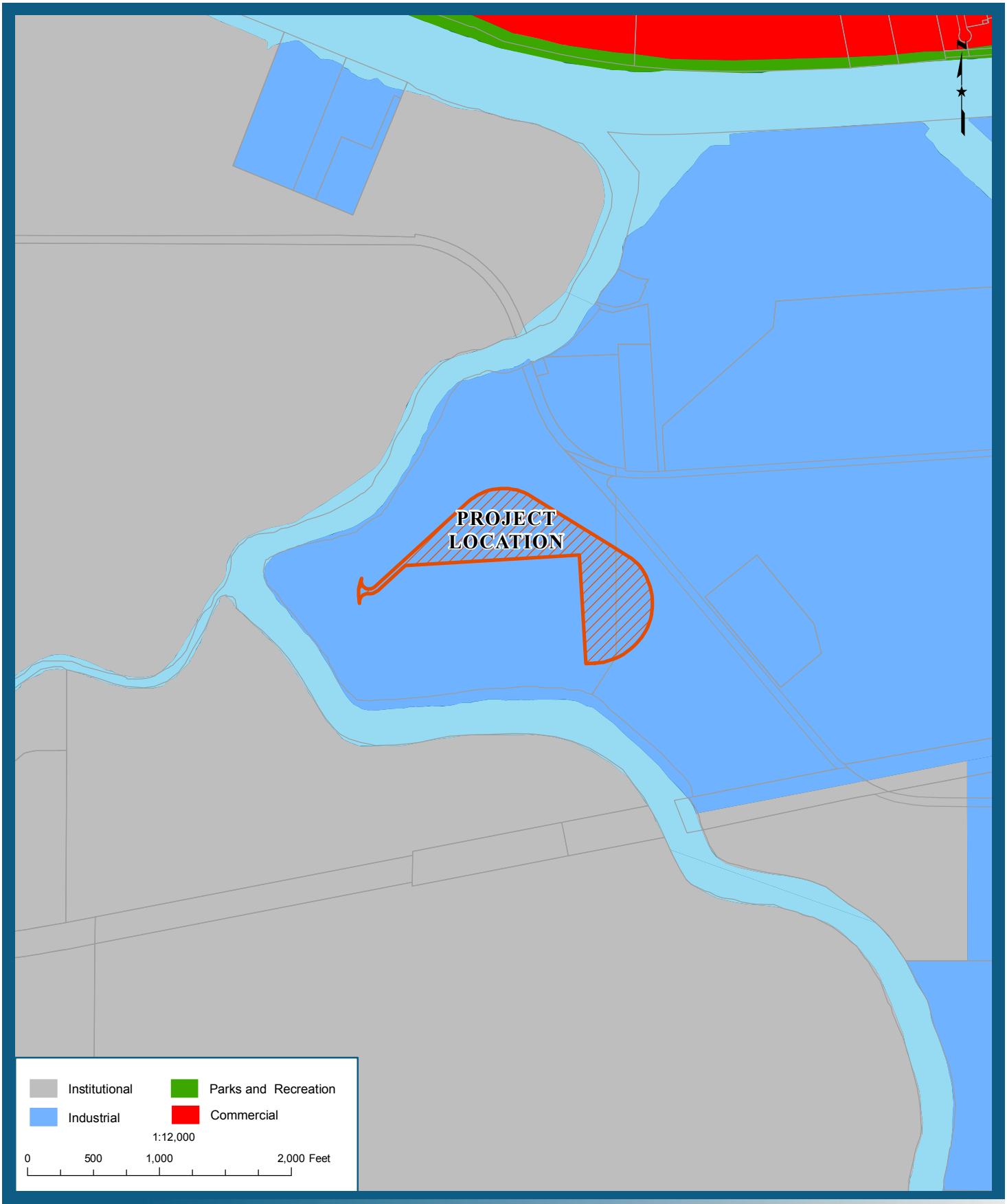

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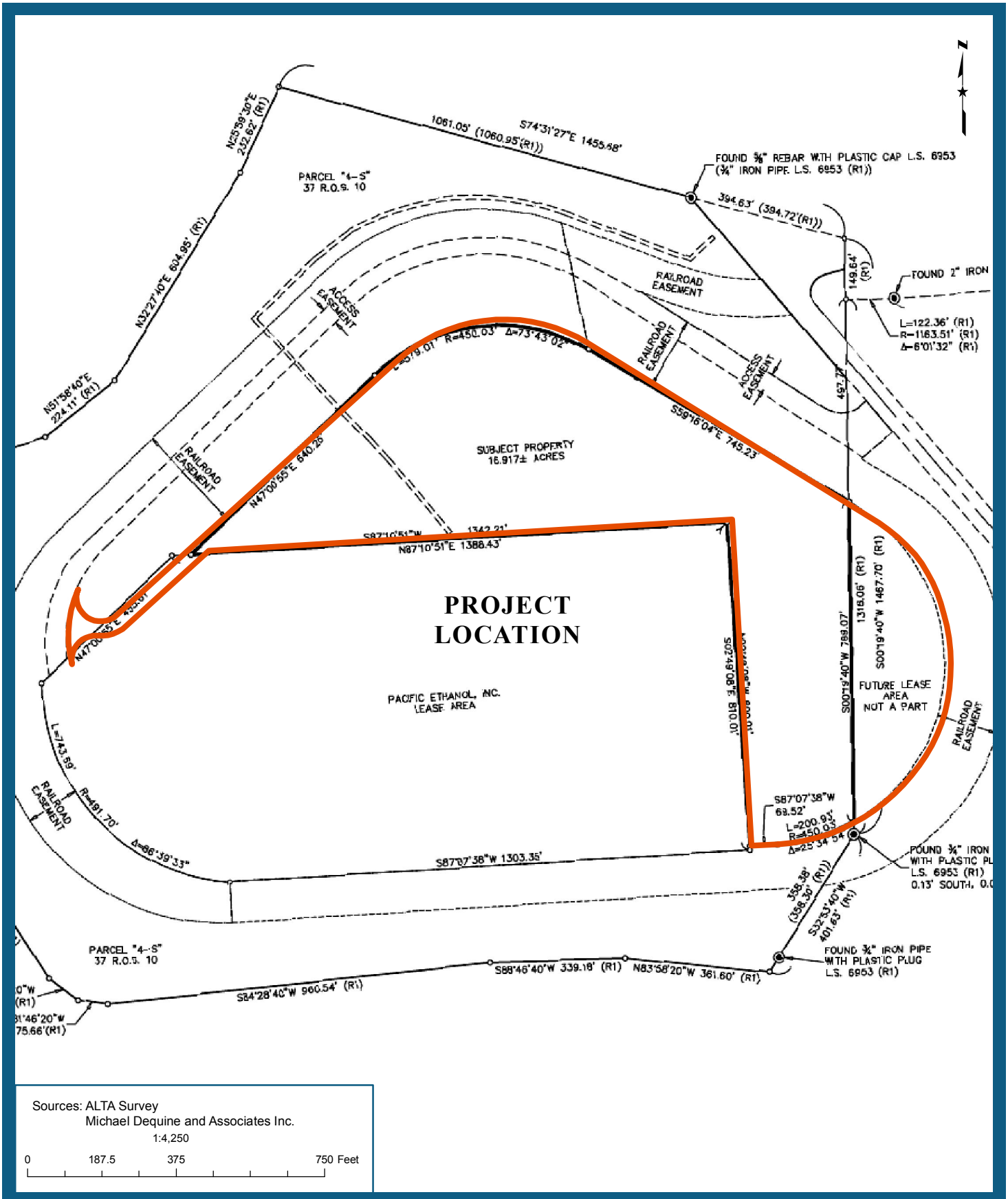
Exhibit 15

Land Use



Sources: ALTA Survey
Michael Dequine and Associates Inc.

1:4,250

0 187.5 375 750 Feet

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Rancho Cordova, CA 95670
Tel: 916.366.0632
Fax: 916.366.1501

Targa Terminals Phase I ESA, Stockton, CA

Exhibit 16

Utilities

APPENDIX “B”: EDR REPORTS

HISTORICAL AERIAL PHOTOGRAPHS

HISTORICAL TOPOGRAPHICAL MAPS

RADIUS MAP WITH GEOCHECK

SANBORN MAP SEARCH

PROPERTY TAX MAP REPORT

ENVIRONMENTAL LIEN

CITY DIRECTORY ABSTRACT

Proposed Targa Stockton Terminaling & Storage Faci

Navy Drive

Stockton, CA 95206

Inquiry Number: 3127420.5

July 25, 2011

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Date EDR Searched Historical Sources:

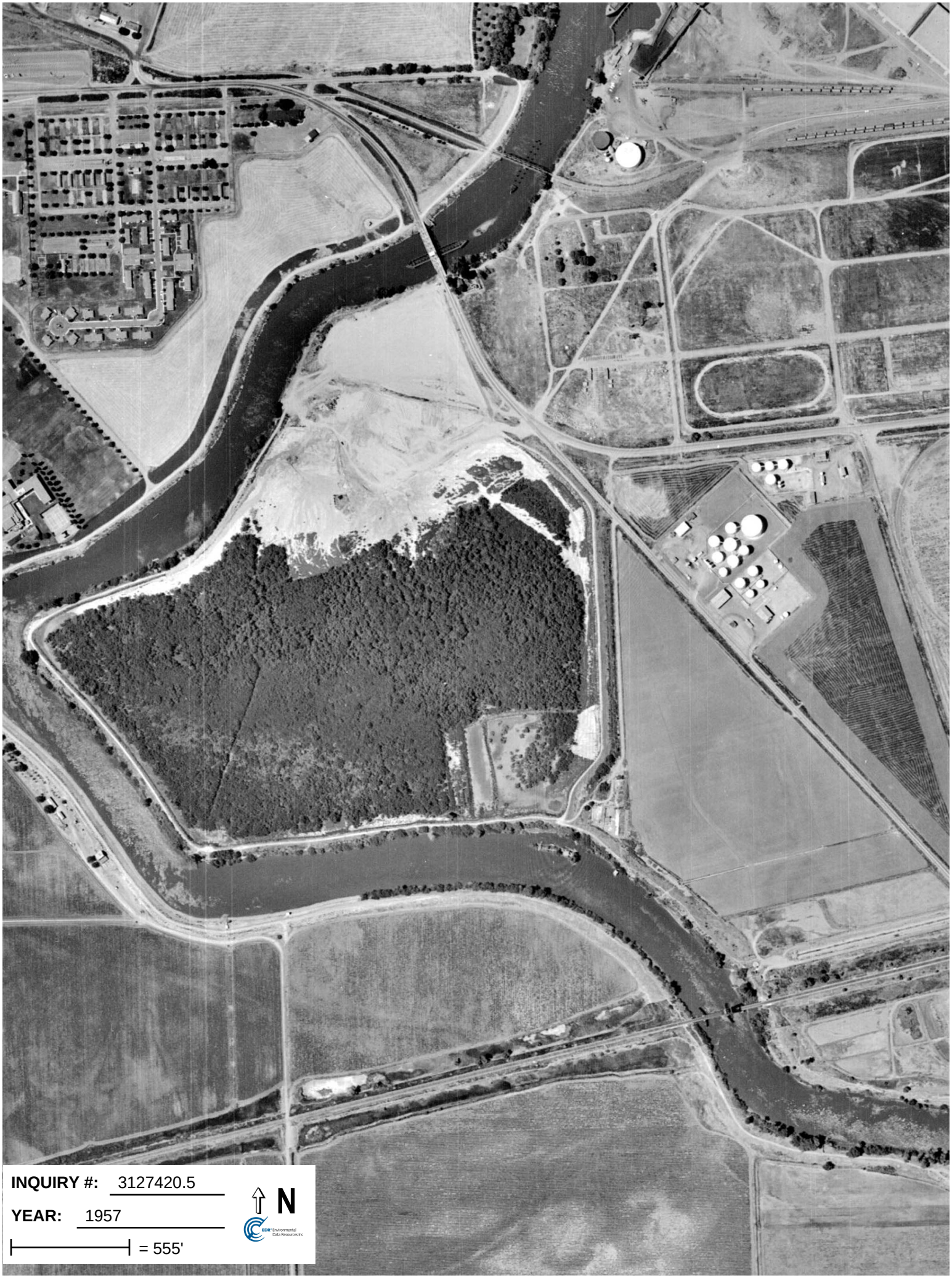
Aerial Photography July 25, 2011

Target Property:

Navy Drive

Stockton, CA 95206

Year	***Scale***	***Details***	***Source***
1957	Aerial Photograph. Scale: 1"=555'	Flight Year: 1957	Cartwright
1963	Aerial Photograph. Scale: 1"=555'	Flight Year: 1963	Mark Hurd
1970	Aerial Photograph. Scale: 1"=333'	Flight Year: 1970	Cartwright
1982	Aerial Photograph. Scale: 1"=690'	Flight Year: 1982	USGS
1993	Aerial Photograph. Scale: 1"=666'	Flight Year: 1993	USGS
1999	Aerial Photograph. Scale: 1"=604'	/Composite DOQQ - acquisition dates: 1999	EDR
2005	Aerial Photograph. Scale: 1"=604'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=604'	Flight Year: 2006	EDR

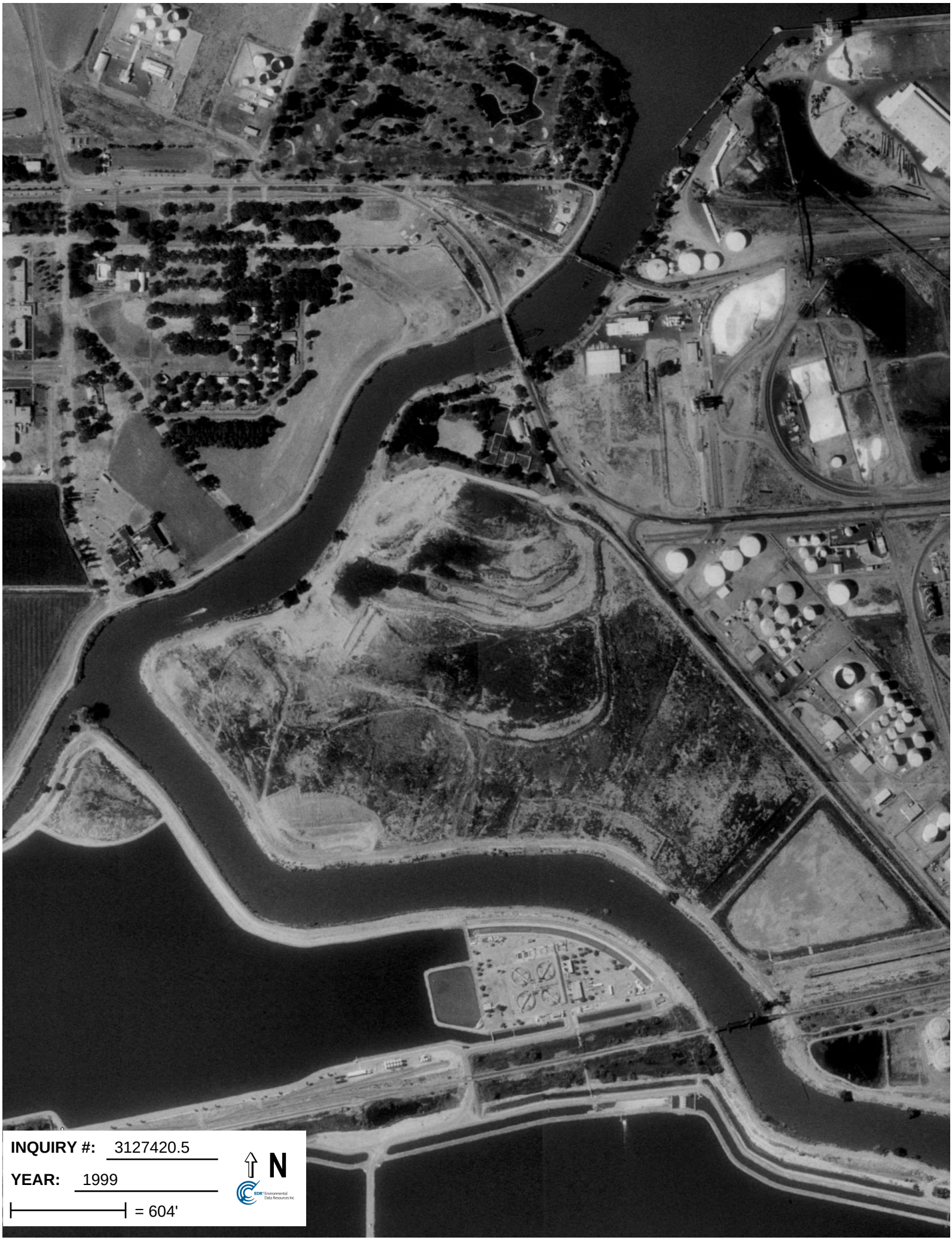

INQUIRY #: 3127420.5
YEAR: 1957
= 555'
N
EDR Environmental Data Resources Inc

INQUIRY #: 3127420.5
YEAR: 1963
= 555'
N
EDR Environmental Data Resources Inc

INQUIRY #: 3127420.5
YEAR: 1970
= 333'
N
EDR Environmental Data Resources Inc

INQUIRY #: 3127420.5
YEAR: 1982
= 690'
N

INQUIRY #: 3127420.5
YEAR: 1993
= 666'
N
EDR Environmental Data Resources Inc


INQUIRY #: 3127420.5
YEAR: 1999
= 604'
N
EDR Environmental Data Resources Inc

INQUIRY #: 3127420.5
YEAR: 2005
= 604'
N

INQUIRY #: 3127420.5
YEAR: 2006
= 604'
N

Proposed Targa Stockton Terminaling & Storage Faci

Navy Drive

Stockton, CA 95206

Inquiry Number: 3127420.4

July 20, 2011

EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

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EDR Historical Topographic Map Report

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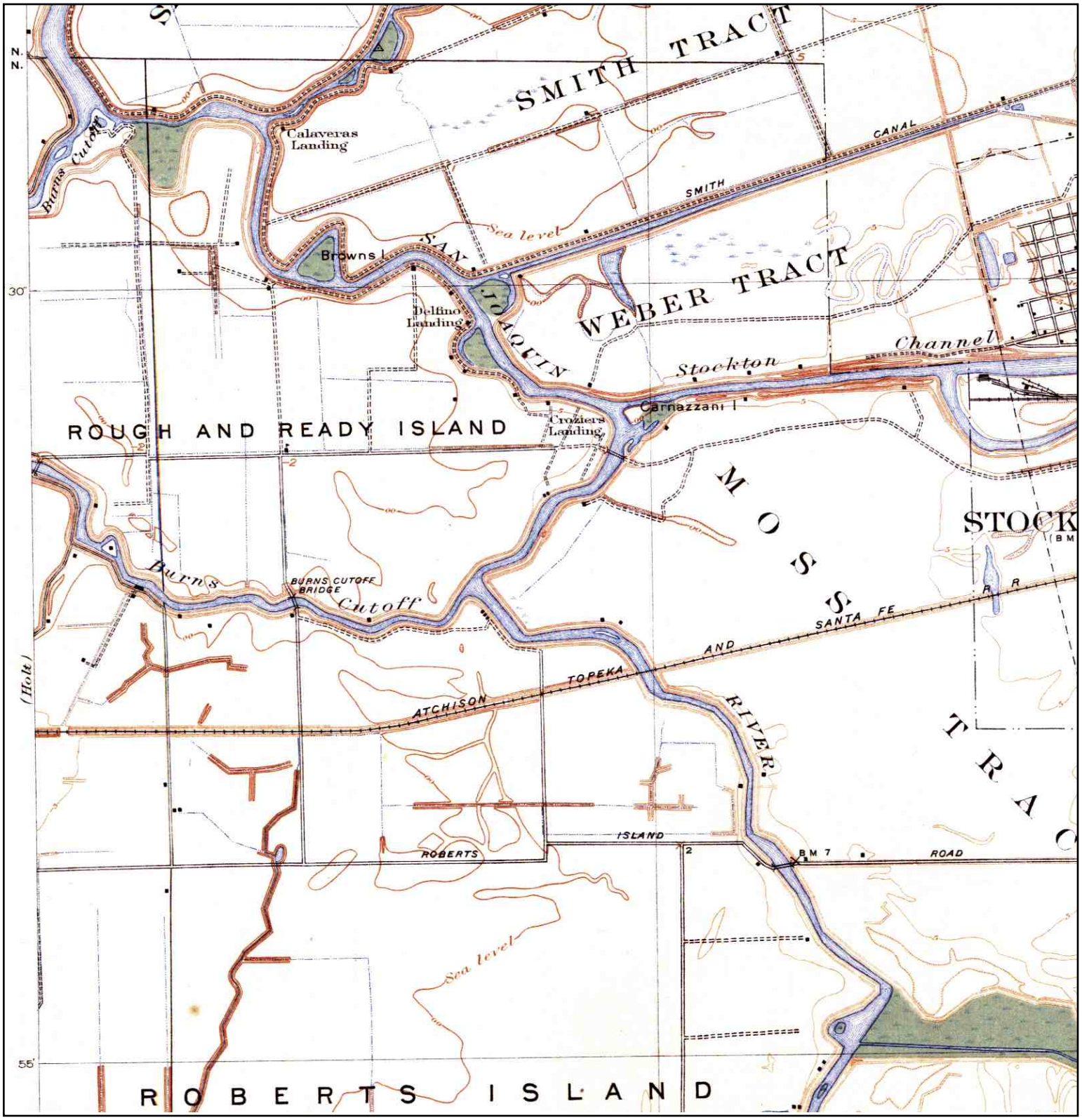
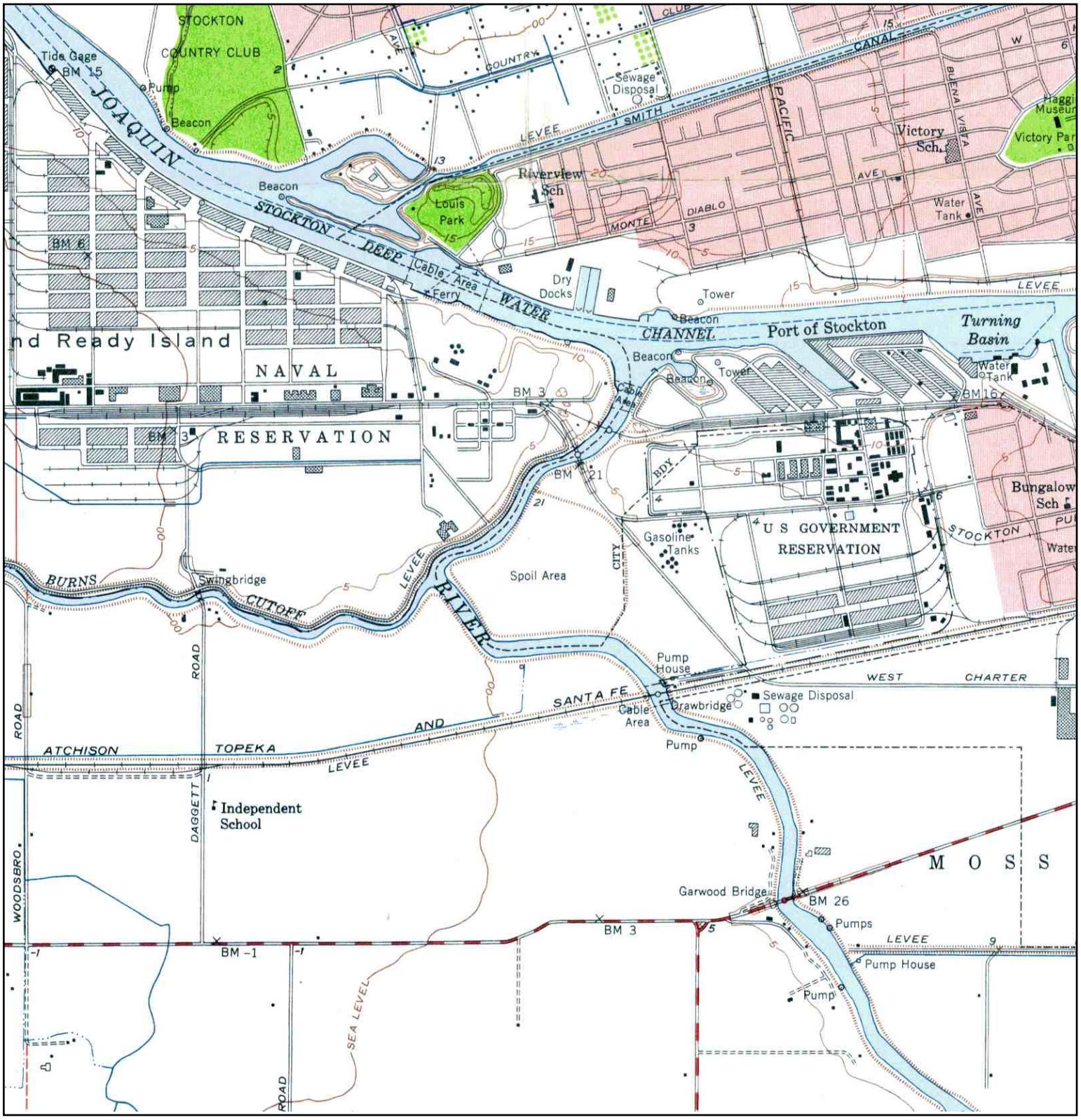
Historical Topographic Map



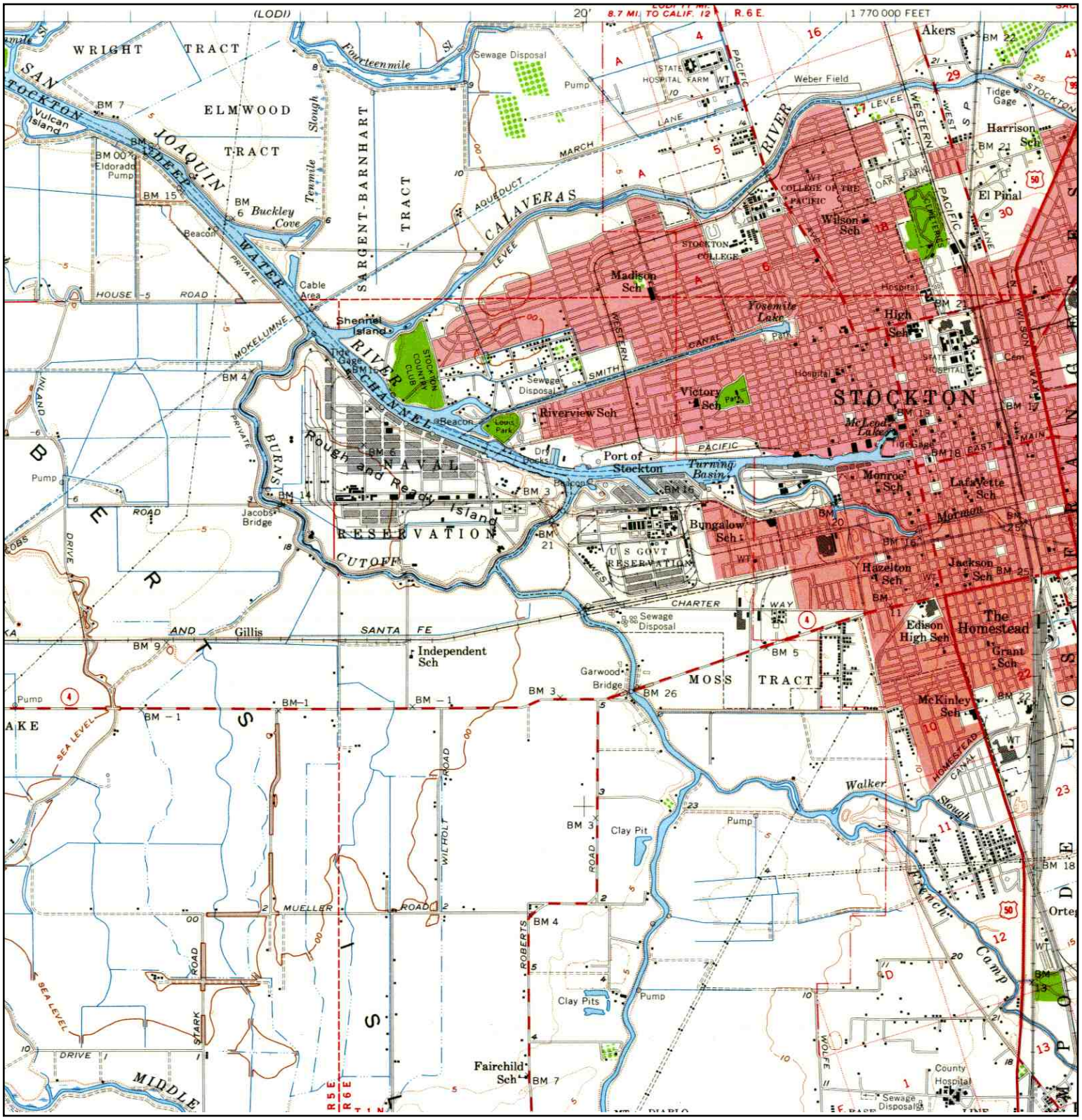
N	TARGET QUAD NAME: STOCKTON MAP YEAR: 1913 SERIES: 7.5 SCALE: 1:31680	SITE NAME: Proposed Targa Stockton Terminaling & ADDRESS: Navy Drive Stockton, CA 95206 LAT/LONG: 37.9428 / -121.3393	CLIENT: TRC CONTACT: Angela Chen INQUIRY#: 3127420.4 RESEARCH DATE: 07/20/2011

Historical Topographic Map



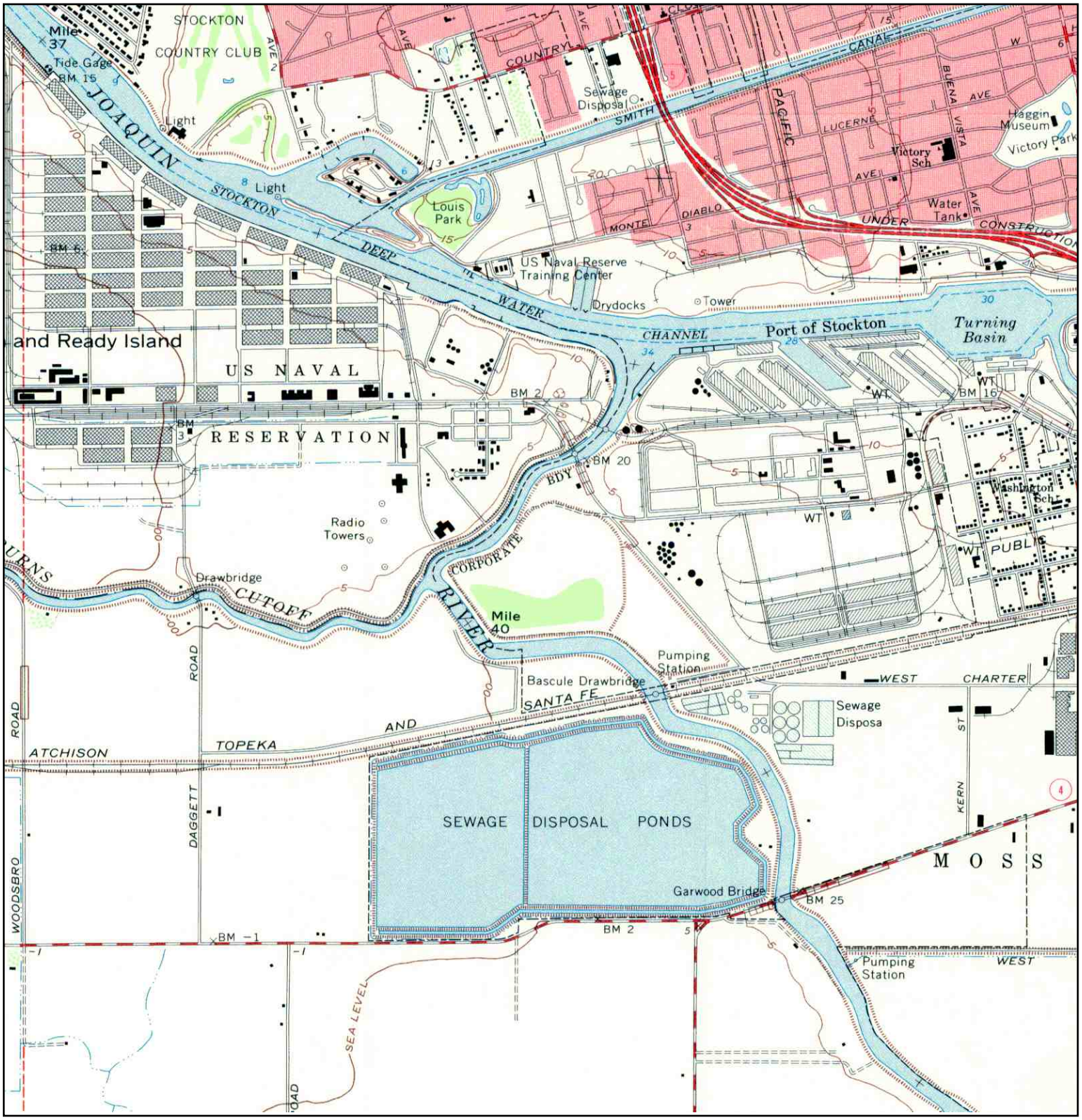
N	TARGET QUAD NAME: STOCKTON WEST MAP YEAR: 1952 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Proposed Targa Stockton Terminaling & ADDRESS: Navy Drive Stockton, CA 95206 LAT/LONG: 37.9428 / -121.3393	CLIENT: TRC CONTACT: Angela Chen INQUIRY#: 3127420.4 RESEARCH DATE: 07/20/2011

Historical Topographic Map



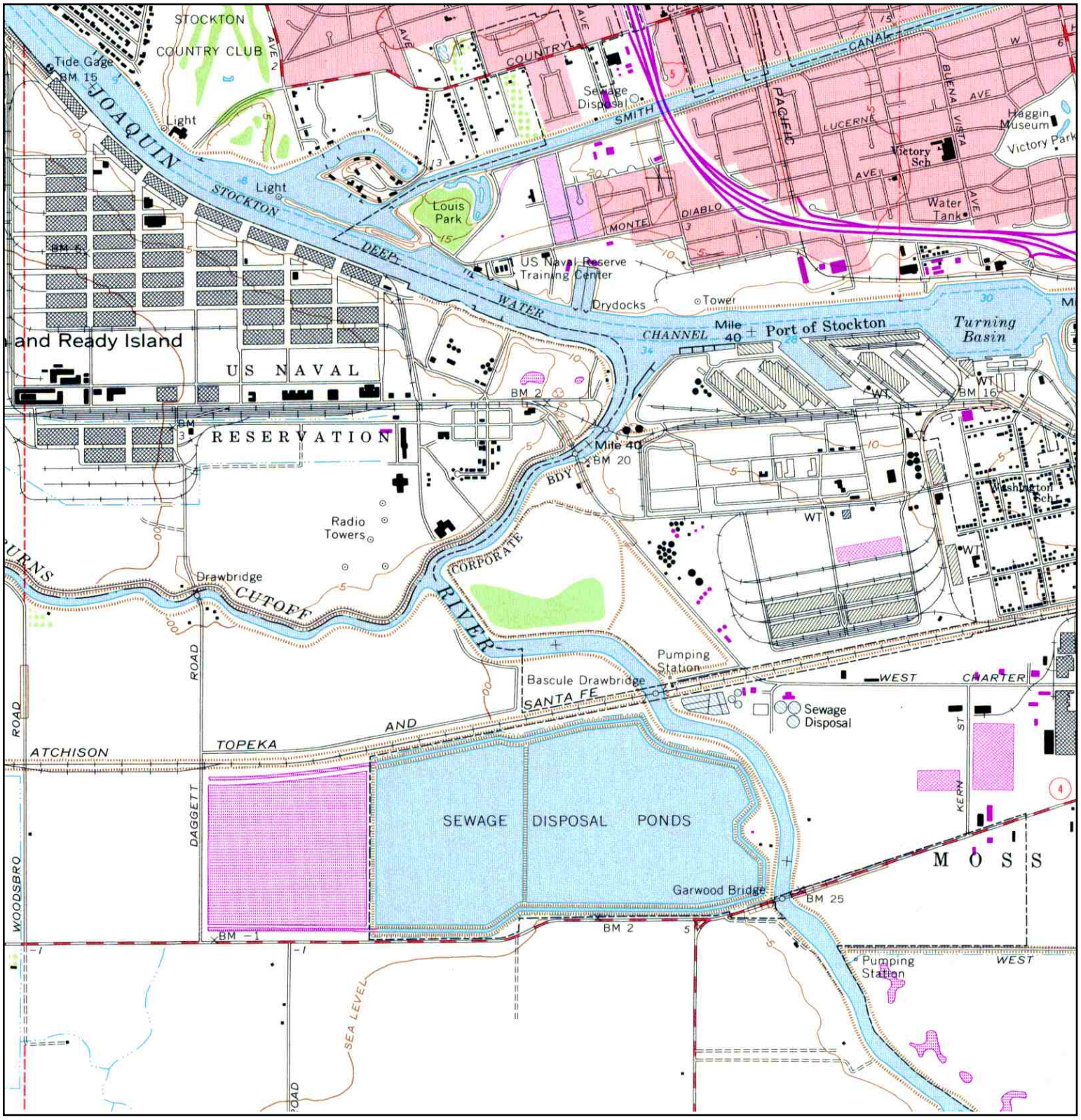
N	TARGET QUAD NAME: STOCKTON MAP YEAR: 1952 SERIES: 15 SCALE: 1:62500	SITE NAME: Proposed Targa Stockton Terminaling & ADDRESS: Navy Drive Stockton, CA 95206 LAT/LONG: 37.9428 / -121.3393	CLIENT: TRC CONTACT: Angela Chen INQUIRY#: 3127420.4 RESEARCH DATE: 07/20/2011

Historical Topographic Map



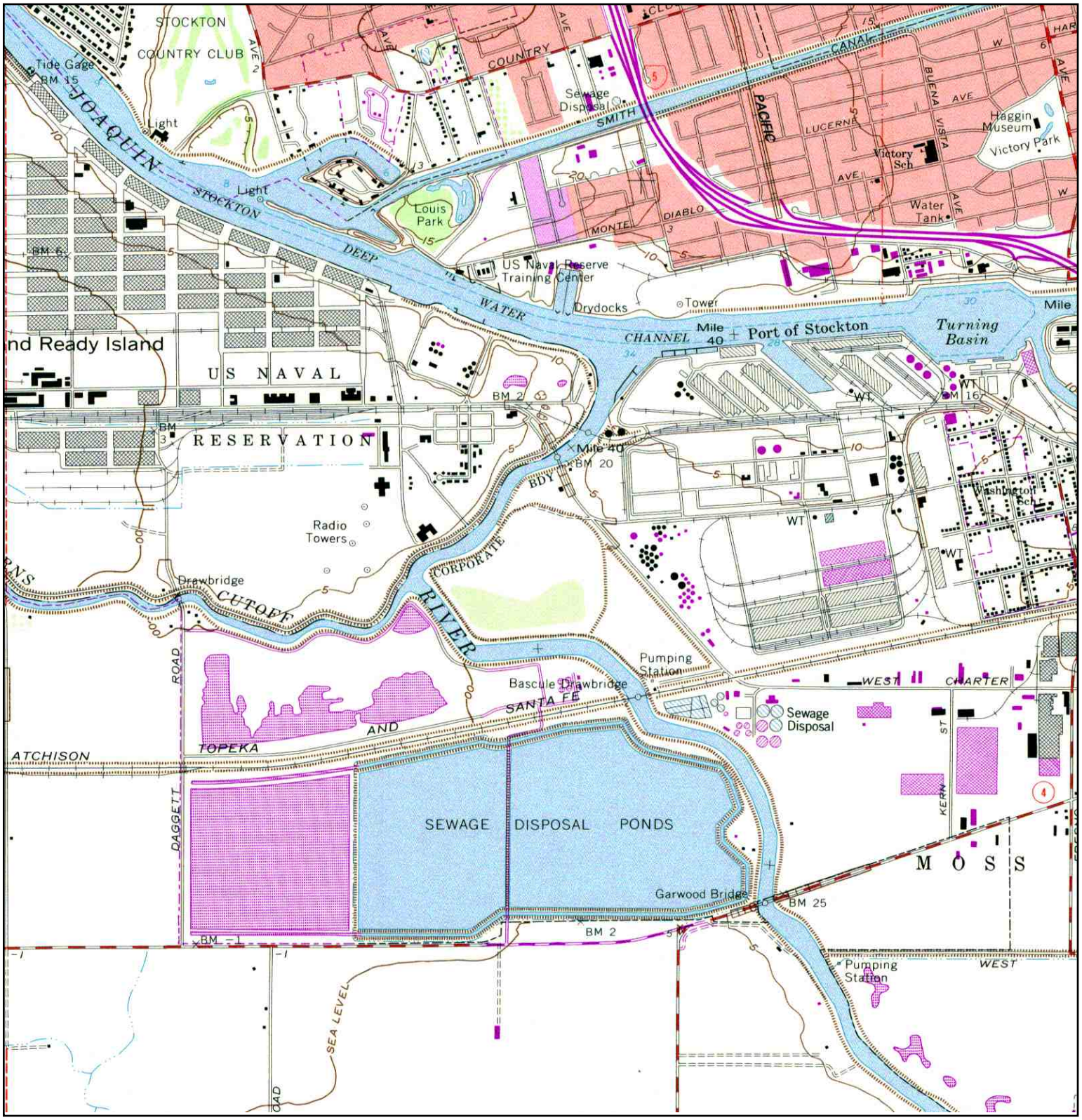
N	TARGET QUAD NAME: STOCKTON WEST MAP YEAR: 1968 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Proposed Targa Stockton Terminaling & ADDRESS: Navy Drive Stockton, CA 95206 LAT/LONG: 37.9428 / -121.3393	CLIENT: TRC CONTACT: Angela Chen INQUIRY#: 3127420.4 RESEARCH DATE: 07/20/2011

Historical Topographic Map



N	TARGET QUAD NAME: STOCKTON WEST MAP YEAR: 1976 PHOTOREVISED:1968 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Proposed Targa Stockton Terminaling & ADDRESS: Navy Drive Stockton, CA 95206 LAT/LONG: 37.9428 / -121.3393	CLIENT: TRC CONTACT: Angela Chen INQUIRY#: 3127420.4 RESEARCH DATE: 07/20/2011

Historical Topographic Map



N	TARGET QUAD NAME: STOCKTON WEST MAP YEAR: 1987 PHOTOREVISED:1968 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Proposed Targa Stockton Terminaling & ADDRESS: Navy Drive Stockton, CA 95206 LAT/LONG: 37.9428 / -121.3393	CLIENT: TRC CONTACT: Angela Chen INQUIRY#: 3127420.4 RESEARCH DATE: 07/20/2011

Proposed Targa Stockton Terminaling & Storage Faci
Navy Drive
Stockton, CA 95206

Inquiry Number: 3127420.2s
July 19, 2011

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

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TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	7
Orphan Summary	328
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-10
Physical Setting Source Map Findings	A-12
Physical Setting Source Records Searched	A-15

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NAVY DRIVE
STOCKTON, CA 95206

COORDINATES

Latitude (North):	37.942800 - 37˚ 56' 34.1''
Longitude (West):	121.339300 - 121˚ 20' 21.5''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	645926.9
UTM Y (Meters):	4200563.5
Elevation:	8 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	37121-H3 STOCKTON WEST, CA
Most Recent Revision:	1987

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	2006, 2005
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

INDIAN UST..... Underground Storage Tanks on Indian Land
FEMA UST..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

EXECUTIVE SUMMARY

ODI	Open Dump Inventory
SWRCY	Recycler Database
HAULERS	Registered Waste Tire Haulers Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL	Clandestine Drug Labs
SCH	School Property Evaluation Program
Toxic Pits	Toxic Pits Cleanup Act Sites
CDL	Clandestine Drug Labs
US HIST CDL	National Clandestine Laboratory Register

Local Land Records

LIENS 2	CERCLA Lien Information
LUCIS	Land Use Control Information System
LIENS	Environmental Liens Listing
DEED	Deed Restriction Listing

Records of Emergency Release Reports

MCS	Military Cleanup Sites Listing

Other Ascertainable Records

DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
RAATS	RCRA Administrative Action Tracking System
DRYCLEANERS	Cleaner Facilities
WIP	Well Investigation Program Case List
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
HWT	Registered Hazardous Waste Transporter Database
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
FINANCIAL ASSURANCE	Financial Assurance Information Listing
PCB TRANSFORMER	PCB Transformer Registration Database
PROC	Certified Processors Database
MWMP	Medical Waste Management Program Listing
COAL ASH DOE	Sleam-Electric Plan Operation Data

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 02/25/2011 has revealed that there are 2 CERCLIS sites within approximately 0.75 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
THE LEARNER COMPANY	2711 NAVY DRIVE	SE 1/4 - 1/2 (0.373 mi.)	F141	224
GENERAL SERVICES ADMINISTRATIO	***ROUGH AND READY ISLAND***	***WNW 1/2 - 1 (0.623 mi.)***	***157***	***254***

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/11/2011 has revealed that there are 4 RCRA-LQG sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NUSTAR TERMINALS OPERATIONS PA	***2941 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A17***	***33***
SANTA FE PACIFIC PIPELINE LP	***2947 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A32***	***53***
BP WEST COAST PRODUCTS LLC - B	***2700 W. WASHINGTON***	***NE 1/8 - 1/4 (0.190 mi.)***	***E119***	***184***
POSDEF POWER COMPANY, LP	2526 W. WASHINGTON STRE	ENE 1/4 - 1/2 (0.304 mi.)	G139	221

EXECUTIVE SUMMARY

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/11/2011 has revealed that there are 6 RCRA-SQG sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
DAVE MARDEN TRUCKING	***2941 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A4***	***14***
TEXACO USA A DIVISION OF TEXAC	***2941 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A25***	***50***
TESORO PETROLEUM CORP	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A61***	***94***
TIME OIL CO	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***
HYDRO AGRI NORTH AMERICA	***3019 NAVY ST***	***NE 0 - 1/8 (0.056 mi.)***	***B76***	***124***
METROPOLITAN STEVEDORE COMPANY	***2321 W WASHINGTON ST ST***	***ENE 1/4 - 1/2 (0.459 mi.)***	***H144***	***227***

Federal ERNS list

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 04/05/2011 has revealed that there are 42 ERNS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NAVY ST. & WASHINGTON	NAVY ST. & WASHINGTON	NE 0 - 1/8 (0.089 mi.)	B80	130

Lower Elevation	Address	Direction / Distance	Map ID	Page
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A7	18
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A9	22
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A12	30
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A15	32
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A18	44
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A19	44
2941 NAVY DR.	2941 NAVY DR.	NE 0 - 1/8 (0.041 mi.)	A20	45
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A21	45
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A22	45
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A24	50
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A26	52
2941 NAVY DR	2941 NAVY DR	NE 0 - 1/8 (0.041 mi.)	A27	52
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A28	52
STOCKTON TERMINAL 2947 NAVY DR	STOCKTON TERMINAL 2947	NE 0 - 1/8 (0.041 mi.)	A29	52
STOCKTON TERMINAL 2947 NAVY DR	STOCKTON TERMINAL 2947	NE 0 - 1/8 (0.041 mi.)	A30	52
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A33	56
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A35	57
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A36	57
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A37	58
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A39	59
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A40	59
STOCKTON TERMINAL 2947 NAVY DR	STOCKTON TERMINAL 2947	NE 0 - 1/8 (0.041 mi.)	A41	60
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A43	73
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A44	73
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A45	73

Lower Elevation	Address	Direction / Distance	Map ID	Page
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A48	76
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A52	91
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A53	91
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A54	91
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A55	91
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A56	91
2947 NAVY DRIVE	2947 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A57	91
3003 NAVY DRIVE	3003 NAVY DRIVE	NE 0 - 1/8 (0.052 mi.)	A59	92
3003 NAVY DRIVE	3003 NAVY DRIVE	NE 0 - 1/8 (0.052 mi.)	A65	108
3003 NAVY DRIVE	3003 NAVY DRIVE	NE 0 - 1/8 (0.052 mi.)	A67	109
3028 NAVY DR	3028 NAVY DR	NE 0 - 1/8 (0.055 mi.)	B68	109
NAVY DRIVE NE SIDE OF RD 100 Y	NAVY DRIVE NE SIDE OF R	N 1/8 - 1/4 (0.179 mi.)	D102	163
2717 W. WASHINGTON	2717 W. WASHINGTON	NE 1/8 - 1/4 (0.181 mi.)	E106	167
2700 W WASHINGTON STREET	2700 W WASHINGTON STREE	NE 1/8 - 1/4 (0.190 mi.)	E113	180
2700 WEST WASHINGTON ST.	2700 WEST WASHINGTON ST	NE 1/8 - 1/4 (0.190 mi.)	E114	180
2700 WEST WASHINGTON ST.	2700 WEST WASHINGTON ST	NE 1/8 - 1/4 (0.190 mi.)	E116	182

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, and dated 06/15/2011 has revealed that there are 4 RESPONSE sites within approximately 1.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NAMOLCO INC	***PORT ROAD***	***NE 1/2 - 1 (0.827 mi.)***	***160***	***278***
STOCKTON NAVAL COMMUNICATION S	***1,459 ACRE ISLAND; 40MI***	***NW 1/2 - 1 (0.991 mi.)***	***162***	***284***

Lower Elevation	Address	Direction / Distance	Map ID	Page
LIKA CORPORATION - NAVY DRIVE	***2041 NAVY DRIVE***	***ESE 1 - 2 (1.008 mi.)***	***L164***	***311***
LIKA CORPORATION-FIELD AVENUE	***1856 FIELD AVE***	***NE 1 - 2 (1.243 mi.)***	***N169***	***323***

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 06/15/2011 has revealed that there are

EXECUTIVE SUMMARY

11 ENVIROSTOR sites within approximately 1.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELL OPUS - STOCKTON TERMINAL Status: Refer: Other Agency	***3515 NAVY DRIVE***	***NW 1/2 - 1 (0.516 mi.)***	***I150***	***238***
NAMOLCO INC Status: Certified	***PORT ROAD***	***NE 1/2 - 1 (0.827 mi.)***	***160***	***278***
STOCKTON NAVAL COMMUNICATION S Status: Active	***1,459 ACRE ISLAND; 40MI***	***NW 1/2 - 1 (0.991 mi.)***	***162***	***284***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SANTA FE PACIFIC PIPELINE LP Status: Refer: Other Agency	2947 NAVY DRIVE, STOCKT	NE 0 - 1/8 (0.041 mi.)	A46	73
TESORO PETROLEUM CORP Status: Refer: Other Agency	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A61***	***94***
TIME OIL CO Status: Refer: Other Agency	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***
LEARNER COMPANY, THE Status: Active	***2711 NAVY DRIVE***	***SE 1/4 - 1/2 (0.288 mi.)***	***F132***	***205***
CAL-FARM SUPPLY COMPANY Status: Refer: RWQCB	***2040 W WASHINGTON***	***ENE 1/2 - 1 (0.920 mi.)***	***161***	***282***
LIKA CORPORATION - NAVY DRIVE Status: Certified	***2041 NAVY DRIVE***	***ESE 1 - 2 (1.008 mi.)***	***L164***	***311***
TYCO PRINTED CIRCUIT GRP. - ST Status: Active	1950 W. FREMONT STREET	NE 1 - 2 (1.182 mi.)	M165	317
LIKA CORPORATION-FIELD AVENUE Status: Certified	***1856 FIELD AVE***	***NE 1 - 2 (1.243 mi.)***	***N169***	***323***

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 05/23/2011 has revealed that there is 1 SWF/LF site within approximately 0.75 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RECOLOGY STOCKTON	PORT 23 PORT OF STOCKTO	ENE 1/2 - 1 (0.734 mi.)	159	276

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 06/20/2011 has revealed that there are 8

EXECUTIVE SUMMARY

LUST sites within approximately 0.75 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SUPPLY TERMINAL SERVICES Status: Completed - Case Closed	2941 NAVY DR	NE 0 - 1/8 (0.041 mi.)	A3	13
RIVERSIDE CEMENT CO Status: Completed - Case Closed	***2825 WASHINGTON ST W***	***NE 0 - 1/8 (0.120 mi.)***	***B94***	***155***
UNOCAL #0950 Status: Completed - Case Closed	***2835 NAVY DR***	***ESE 1/8 - 1/4 (0.128 mi.)***	***C95***	***156***
THE LEARNER COMPANY Status: Completed - Case Closed	***2711 NAVY DR***	***SE 1/4 - 1/2 (0.288 mi.)***	***F130***	***197***
STOCKTON NCS	305 FYFFE AVENUE	NW 1/2 - 1 (0.515 mi.)	J149	238
WASTE WATER TREATMENT PLANT (C Status: Completed - Case Closed	2500 NAVY DRIVE	SE 1/2 - 1 (0.534 mi.)	K152	243
Not reported Status: Completed - Case Closed	***2500 NAVY DRIVE***	***SE 1/2 - 1 (0.534 mi.)***	***K153***	***244***
KOK REALTY Status: Open - Site Assessment	***2403 NAVY DR***	***ESE 1/2 - 1 (0.621 mi.)***	***156***	***252***

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 06/20/2011 has revealed that there are 22 SLIC sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TOSCO BULK TERMINAL #10013 (FO Facility Status: Open - Remediation	***3505 NAVY DRIVE***	***NW 1/2 - 1 (0.504 mi.)***	***I146***	***230***
NUSTAR TERMINALS OPERATIONS PA	***3505 NAVY DR***	***NW 1/2 - 1 (0.504 mi.)***	***I147***	***234***
SHELL OPUS - STOCKTON TERMINAL Facility Status: Open - Remediation	***3515 NAVY DRIVE***	***NW 1/2 - 1 (0.516 mi.)***	***I150***	***238***
EQUILON ENTERPRISES LLC-LOW TH	***3515 NAVY***	***NW 1/2 - 1 (0.516 mi.)***	***I151***	***240***
METROPOLITAN CALIFORNIA STEVED	***PORT OF STOCKTON***	***ENE 1/2 - 1 (0.666 mi.)***	***158***	***260***

Lower Elevation	Address	Direction / Distance	Map ID	Page
NUSTAR TERMINALS OPERATIONS PA	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A8***	***18***
NUSTAR TERMINALS OPERATIONS PA Facility Status: Open - Remediation	***2941 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A17***	***33***
KINDER MORGAN ENERGY PARTNERS	***2947 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A42***	***60***
KMEP - STOCKTON TERMINAL Facility Status: Open - Verification Monitoring	***2947 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A50***	***79***
PG&E - LEARNER SUBSTATION Facility Status: Open - Verification Monitoring	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A60***	***92***
TIME OIL CO Facility Status: Open - Assessment & Interim Remedial Action	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***
HYDROAGRI NORTH AMERICA Facility Status: Open - Inactive	3019 NAVY DRIVE	NE 0 - 1/8 (0.056 mi.)	B75	123
STOCKTON PETROLEUM Facility Status: Open - Inactive	***3025 NAVY DR***	***NE 0 - 1/8 (0.059 mi.)***	***B79***	***128***
LESCO, INC. (FORMER TRI DELTA Facility Status: Open - Site Assessment	2829 WEST WASHINGTON ST	NE 0 - 1/8 (0.117 mi.)	B86	136

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNOCAL #0950	***2835 NAVY DR***	***ESE 1/8 - 1/4 (0.128 mi.)***	***C95***	***156***
ARCO PRODUCTS - STOCKTON FACIL	2700 WASHINGTON ST W	NE 1/8 - 1/4 (0.190 mi.)	E120	189
STOCKTON TERMINALS TECHNICAL C	2700 WASHINGTON STREET	NE 1/8 - 1/4 (0.190 mi.)	E121	189
Facility Status: Open - Site Assessment				
LEARNER COMPANY, THE	***2711 NAVY DRIVE***	***SE 1/4 - 1/2 (0.288 mi.)***	***F132***	***205***
Facility Status: Open - Inactive				
POSDEF POWER COMPANY** SOME AR	2526 WASHINGTON ST W	ENE 1/4 - 1/2 (0.291 mi.)	G135	215
CARGILL MOLASSES	2321 W. WASHINGTON ST #	ENE 1/4 - 1/2 (0.459 mi.)	H143	226
Facility Status: Completed - Case Closed				
UAP/PACIFEX	2321 W. WASHINGTON, SUI	ENE 1/4 - 1/2 (0.459 mi.)	H145	229
Facility Status: Open - Inactive				
UNITED STATES NAVAL COMPUTER &	305 FYFFE AVE AC-43	NW 1/2 - 1 (0.515 mi.)	J148	237
Facility Status: Open - Assessment & Interim Remedial Action				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 06/20/2011 has revealed that there are 11 UST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NUSTAR TERMINAL SVCS INC	2941 NAVY DR	NE 0 - 1/8 (0.041 mi.)	A5	15
SFPP LP (STOCKTON TERMINAL)	2947 NAVY DR	NE 0 - 1/8 (0.041 mi.)	A51	90
TESORO PETROLEUM CORP	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A61***	***94***
TIME OIL CO	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***
STOCKTON PETROLEUM	3025 NAVY DR	NE 0 - 1/8 (0.059 mi.)	B77	127
RIVERSIDE CEMENT COMPANY	2825 W WASHINGTON ST	NE 0 - 1/8 (0.119 mi.)	B93	155
JEMCO UNION OIL	2835 NAVY DR	ESE 1/8 - 1/4 (0.128 mi.)	C97	158
BP WEST COAST PRO-ARCO STK TER	2700 W WASHINGTON ST	NE 1/8 - 1/4 (0.190 mi.)	E112	180
LEARNER COMPANY, THE	2711 NAVY DR	SE 1/4 - 1/2 (0.288 mi.)	F131	204
POSDEF POWER CO, L P	2526 WASHINGTON ST	ENE 1/4 - 1/2 (0.304 mi.)	G137	220
POSDEF POWER CO, L P-COAL SITE	2526 W WASHINGTON ST	ENE 1/4 - 1/2 (0.304 mi.)	G138	220

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the AST list, as provided by EDR, and dated 08/01/2009 has revealed that there are 7 AST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NUSTAR TERMINAL SVCS INC	2941 NAVY	NE 0 - 1/8 (0.041 mi.)	A10	23
KINDER MORGAN	2947 NAVY	NE 0 - 1/8 (0.041 mi.)	A31	52
TESORO WEST COAST COMPANY	3003 NAVY	NE 0 - 1/8 (0.052 mi.)	A64	108
BP WEST COAST PRO-ARCO STK TER	2700 W WASHINGTON	NE 1/8 - 1/4 (0.190 mi.)	E111	179
DB WESTERN	2650 W WASHINGTON	NE 1/8 - 1/4 (0.220 mi.)	E124	192
THE LEARNER COMPANY	2711 NAVY	SE 1/4 - 1/2 (0.288 mi.)	F134	214

Lower Elevation	Address	Direction / Distance	Map ID	Page
A PLUS MATERIALS RECYCLING INC	250 PORT	ENE 1/4 - 1/2 (0.392 mi.)	H142	226

State and tribal voluntary cleanup sites

VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the VCP list, as provided by EDR, and dated 06/15/2011 has revealed that there is 1 VCP site within approximately 0.75 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LEARNER COMPANY, THE	***2711 NAVY DRIVE***	***SE 1/4 - 1/2 (0.288 mi.)***	***F132***	***205***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there is 1 WMUDS/SWAT site within approximately 0.75 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BAY SULFUR	2717 W. WASHINGTON	NE 1/8 - 1/4 (0.248 mi.)	E129	196

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there are 4 HIST Cal-Sites sites within approximately 1.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NAMOLCO INC	***PORT ROAD***	***NE 1/2 - 1 (0.827 mi.)***	***160***	***278***
STOCKTON NAVAL COMMUNICATION S	***1,459 ACRE ISLAND; 40MI***	***NW 1/2 - 1 (0.991 mi.)***	***162***	***284***

Lower Elevation	Address	Direction / Distance	Map ID	Page
LIKA CORPORATION - NAVY DRIVE	***2041 NAVY DRIVE***	***ESE 1 - 2 (1.008 mi.)***	***L164***	***311***
LIKA CORPORATION-FIELD AVENUE	***1856 FIELD AVE***	***NE 1 - 2 (1.243 mi.)***	***N169***	***323***

Local Lists of Registered Storage Tanks

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 9 CA FID UST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NUSTAR TERMINALS OPERATIONS PA	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A8***	***18***
KINDER MORGAN ENERGY PARTNERS	***2947 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A42***	***60***
PG&E - LEARNER SUBSTATION	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A60***	***92***
TIME OIL CO	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***
STOCKTON PETROLEUM	3025 NAVY DR	NE 0 - 1/8 (0.059 mi.)	B78	127
RIVERSIDE CEMENT COMPANY	***2825 W WASHINGTON ST***	***NE 0 - 1/8 (0.119 mi.)***	***B92***	***154***
UNOCAL	***2835 NAVY DR***	***ESE 1/8 - 1/4 (0.128 mi.)***	***C98***	***159***
THE LEARNER COMPANY	2711 NAVY DR	SE 1/4 - 1/2 (0.288 mi.)	F133	214
POSDEF POWER COMPANY L.P.	***2526 W WASHINGTON ST***	***ENE 1/4 - 1/2 (0.304 mi.)***	***G136***	***215***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 10 HIST UST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
STOCKTON SALES TERMINAL	2941 NAVY DR	ENE 0 - 1/8 (0.041 mi.)	A1	7
WILLIAMS TANK LINES	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A13***	***30***
STANDARD TRANSMISSION TERMINAL	2941 NAVY DR	NE 0 - 1/8 (0.041 mi.)	A14	32
S T SERVICES	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A23***	***45***
STOCKTON TERMINAL	***2947 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A47***	***74***
AMINOIL STOCKTON TERMINAL	3003 NAVY DR	NE 0 - 1/8 (0.052 mi.)	A62	105
TIME OIL CO	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***
STOCKTON PETROLEUM	***3025 NAVY DR***	***NE 0 - 1/8 (0.059 mi.)***	***B79***	***128***
STOCKTON TERMINAL	2835 NAVY DR	ESE 1/8 - 1/4 (0.128 mi.)	C96	158
THE LEARNER COMPANY	***2711 NAVY DR***	***SE 1/4 - 1/2 (0.288 mi.)***	***F130***	***197***

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 11 SWEEPS UST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NUSTAR TERMINALS OPERATIONS PA	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A8***	***18***
KINDER MORGAN ENERGY PARTNERS	***2947 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A42***	***60***
STOCKTON TERMINAL	***2947 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A47***	***74***
PG&E - LEARNER SUBSTATION	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A60***	***92***
TESORO PETROLEUM CORP	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A61***	***94***
TIME OIL CO	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***
STOCKTON PETROLEUM	***3025 NAVY DR***	***NE 0 - 1/8 (0.059 mi.)***	***B79***	***128***
RIVERSIDE CEMENT COMPANY	***2825 W WASHINGTON ST***	***NE 0 - 1/8 (0.119 mi.)***	***B92***	***154***

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNOCAL	***2835 NAVY DR***	***ESE 1/8 - 1/4 (0.128 mi.)***	***C98***	***159***
THE LEARNER COMPANY	***2711 NAVY DR***	***SE 1/4 - 1/2 (0.288 mi.)***	***F130***	***197***
POSDEF POWER COMPANY L.P.	***2526 W WASHINGTON ST***	***ENE 1/4 - 1/2 (0.304 mi.)***	***G136***	***215***

Records of Emergency Release Reports

HMIRS: The Hazardous Materials Incident Report System contains hazardous material spill incidents reported to the Department of Transportation. The source of this database is the U.S. EPA.

A review of the HMIRS list, as provided by EDR, and dated 12/31/2010 has revealed that there is 1 HMIRS site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
2941 NAVY DRIVE	2941 NAVY DRIVE	NE 0 - 1/8 (0.041 mi.)	A16	32

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/2010 has revealed that there are 13 CHMIRS sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	2941 NAVY DR	NE 0 - 1/8 (0.041 mi.)	A2	7
Not reported	2941 NAVY DR.	NE 0 - 1/8 (0.041 mi.)	A11	23
NUSTAR TERMINALS OPERATIONS PA	***2941 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A17***	***33***
KINDER MORGAN ENERGY PARTNERS	***2947 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A42***	***60***
STOCKTON TERMINAL	***2947 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A47***	***74***
Not reported	2947 NAVY DR.	NE 0 - 1/8 (0.041 mi.)	A49	77
KMEP - STOCKTON TERMINAL	***2947 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A50***	***79***
TESORO PETROLEUM CORP	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A61***	***94***
Not reported	NAVY/WASHINGTON	N 1/8 - 1/4 (0.179 mi.)	D101	161
Date Completed: 23-DEC-90				
Not reported	2700 W. WASHINGTON	NE 1/8 - 1/4 (0.190 mi.)	E110	177
Not reported	2700 WEST WASHINGTON ST	NE 1/8 - 1/4 (0.190 mi.)	E115	181
Not reported	2700 WEST WASHINGTON ST	NE 1/8 - 1/4 (0.190 mi.)	E117	182
Not reported	2717 W. WASHINGTON (BA	NE 1/8 - 1/4 (0.248 mi.)	E128	195

LDS: The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

A review of the LDS list, as provided by EDR, and dated 06/20/2011 has revealed that there are 2 LDS sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BAY SULFUR	2717 W. WASHINGTON	NE 1/8 - 1/4 (0.180 mi.)	E103	163
MARTIN OPERATING PARTNERSHIP	***2717 WEST WASHINGTON ST***	***NE 1/8 - 1/4 (0.181 mi.)***	***E104***	***163***

Other Ascertainable Records

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA-NonGen list, as provided by EDR, and dated 03/11/2011 has revealed that there are 3 RCRA-NonGen sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
WILLIAMS TANK LINES	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A13***	***30***
TOSCO CORPORATION, STOCKTON TE	***2947 NAVY DRIVE BUILDIN***	***NE 0 - 1/8 (0.041 mi.)***	***A34***	***56***
H H ROBERTSON	***W WASHINGTON ST & PORT***	***ENE 1/4 - 1/2 (0.348 mi.)***	***G140***	***223***

DOD: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD site within approximately 1.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STOCKTON NAVAL COMMUNICATIONS		NW 0 - 1/8 (0.038 mi.)	0	7

FUDS: The Listing includes locations of Formerly Used Defense Sites Properties where the US Army Corps Of Engineers is actively working or will take necessary cleanup actions.

A review of the FUDS list, as provided by EDR, and dated 12/31/2009 has revealed that there is 1 FUDS site within approximately 1.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STOCKTON ORDNANCE DEPOT		NE 1/2 - 1 (0.540 mi.)	154	249

SSTS: Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

A review of the SSTS list, as provided by EDR, and dated 12/31/2009 has revealed that there are 2 SSTS sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LESCO DISTRIBUTION CENTER	***2829 W. WASHINGTON***	***NE 0 - 1/8 (0.117 mi.)***	***B87***	***137***
LESCO, INC	2829 W WASHINGTON	NE 0 - 1/8 (0.117 mi.)	B88	147

EXECUTIVE SUMMARY

ICIS: The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

A review of the ICIS list, as provided by EDR, and dated 01/07/2011 has revealed that there is 1 ICIS site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TRI DELTA/LESCO	2829 W. WASHINGTON S	NE 0 - 1/8 (0.118 mi.)	B90	151

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 04/14/2010 has revealed that there are 16 FINDS sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
DAVE MARDEN TRUCKING	***2941 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A4***	***14***
WILLIAMS TANK LINES	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A13***	***30***
NUSTAR TERMINALS OPERATIONS PA	***2941 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A17***	***33***
TEXACO USA A DIVISION OF TEXAC	***2941 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A25***	***50***
SANTA FE PACIFIC PIPELINE LP	***2947 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A32***	***53***
TOSCO CORPORATION, STOCKTON TE	***2947 NAVY DRIVE BUILDIN***	***NE 0 - 1/8 (0.041 mi.)***	***A34***	***56***
TESORO PETROLEUM CORP	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A61***	***94***
PACIFIC ETHANOL STOCKTON LLC	3028 NAVY DRIVE	NE 0 - 1/8 (0.055 mi.)	B70	112
STOCKTON TERMINAL	3015 NAVY DR	NE 0 - 1/8 (0.055 mi.)	B72	118
HYDRO AGRI NORTH AMERICA	***3019 NAVY ST***	***NE 0 - 1/8 (0.056 mi.)***	***B76***	***124***
PACIFIC CUSTOM MATERIALS	2845 W. WASHINGTON STRE	NE 0 - 1/8 (0.109 mi.)	B84	135
LESCO DISTRIBUTION CENTER	***2829 W. WASHINGTON***	***NE 0 - 1/8 (0.117 mi.)***	***B87***	***137***
BAY SULFUR COMPANY	2717 W. WASHINGTON STRE	NE 1/8 - 1/4 (0.181 mi.)	E105	167
STOCKTON TERMINAL	2700 W WASHINGTON	NE 1/8 - 1/4 (0.190 mi.)	E118	184
BP WEST COAST PRODUCTS LLC - B	***2700 W. WASHINGTON***	***NE 1/8 - 1/4 (0.190 mi.)***	***E119***	***184***
D.B. WESTERN	2650 WEST WASHINGTON ST	NE 1/8 - 1/4 (0.220 mi.)	E126	193

CA BOND EXP. PLAN: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there are 3 CA BOND EXP. PLAN sites within approximately 1.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LIKA - NAVY DRIVE	***2041 NAVY DRIVE***	***ESE 1 - 2 (1.008 mi.)***	***L163***	***308***
NAVAL COM - AREA LFD	***ROUGH AND READY ISLAND***	***WNW 1 - 2 (1.229 mi.)***	***167***	***321***
LIKA - FIELD AVENUE	1856 FIELD AVENUE	NE 1 - 2 (1.243 mi.)	N168	322

EXECUTIVE SUMMARY

WDS: California Water Resources Control Board - Waste Discharge System.

A review of the WDS list, as provided by EDR, and dated 06/19/2007 has revealed that there are 5 WDS sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ST SERVICES	2941 NAVY DR	NE 0 - 1/8 (0.041 mi.)	A6	16
YARA NORTH AMERICA	***3019 NAVY DR***	***NE 0 - 1/8 (0.056 mi.)***	***B74***	***122***
TXI RIVERSIDE CEMENT CO	***2845 W WASHINGTON ST***	***NE 0 - 1/8 (0.109 mi.)***	***B83***	***132***
MARTIN OPERATING PARTNERSHIP	***2717 WEST WASHINGTON ST***	***NE 1/8 - 1/4 (0.181 mi.)***	***E104***	***163***
BP WEST COAST PRODUCTS LLC	***2700 W WASHINGTON ST***	***NE 1/8 - 1/4 (0.190 mi.)***	***E108***	***169***

NPDES: A listing of NPDES permits, including stormwater.

A review of the NPDES list, as provided by EDR, and dated 05/24/2011 has revealed that there are 11 NPDES sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NAVY DR TO MCCLOY SECURITY RER	3160 NAVY DR	N 1/8 - 1/4 (0.153 mi.)	D100	161

Lower Elevation	Address	Direction / Distance	Map ID	Page
NUSTAR TERMINALS OPERATIONS PA	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A8***	***18***
PACIFIC ETHANOL STOCKTON LLC	***3028 NAVY DR***	***NE 0 - 1/8 (0.055 mi.)***	***B69***	***110***
TIME OIL CO	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***
YARA NORTH AMERICA	***3019 NAVY DR***	***NE 0 - 1/8 (0.056 mi.)***	***B74***	***122***
TXI RIVERSIDE CEMENT CO	***2845 W WASHINGTON ST***	***NE 0 - 1/8 (0.109 mi.)***	***B83***	***132***
BAY SULFUR COMPANY	***2717 W WASHINGTON ST***	***NE 1/8 - 1/4 (0.181 mi.)***	***E107***	***167***
BP WEST COAST PRODUCTS LLC	***2700 W WASHINGTON ST***	***NE 1/8 - 1/4 (0.190 mi.)***	***E108***	***169***
HJ BAKER & BRO INC	***65 STORK ROAD***	***NE 1/8 - 1/4 (0.215 mi.)***	***E122***	***189***
D B WESTERN INC CALIFORNIA	2650 W WASHINGTON	NE 1/8 - 1/4 (0.220 mi.)	E125	193
DB WESTERN INC CA	***2650 W WASHINGTON ST***	***NE 1/8 - 1/4 (0.220 mi.)***	***E127***	***194***

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

A review of the Cortese list, as provided by EDR, and dated 07/01/2011 has revealed that there is 1 Cortese site within approximately 0.75 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
STOCKTON AREA MS4 STORMWATER	***METROPOLITAN AREA STORM***	***ESE 1/2 - 1 (0.590 mi.)***	***K155***	***250***

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 5 HIST CORTESE sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TIME OIL CO	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***
STOCKTON PETROLEUM	***3025 NAVY DR***	***NE 0 - 1/8 (0.059 mi.)***	***B79***	***128***

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
RIVERSIDE CEMENT CO	***2825 WASHINGTON ST W***	***NE 0 - 1/8 (0.120 mi.)***	***B94***	***155***
UNOCAL #0950	***2835 NAVY DR***	***ESE 1/8 - 1/4 (0.128 mi.)***	***C95***	***156***
THE LEARNER COMPANY	***2711 NAVY DR***	***SE 1/4 - 1/2 (0.288 mi.)***	***F130***	***197***

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there is 1 Notify 65 site within approximately 1.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TIME OIL CO	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, and dated 12/31/2009 has revealed that there are 19 HAZNET sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NUSTAR TERMINALS OPERATIONS PA	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A8***	***18***
WILLIAMS TANK LINES	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A13***	***30***
NUSTAR TERMINALS OPERATIONS PA	***2941 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A17***	***33***
SFPP LP (STOCKTON TERMINAL)	2947 NAVY DR	NE 0 - 1/8 (0.041 mi.)	A38	58
PORT OF STOCKTON	3025 NAVY DR	NE 0 - 1/8 (0.047 mi.)	A58	92
PG&E - LEARNER SUBSTATION	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A60***	***92***
TESORO PETROLEUM CORP	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A61***	***94***
TESORO REFINING AND MARKETING	3003 NAVY DR	NE 0 - 1/8 (0.052 mi.)	A63	106
PACIFIC ETHANOL STOCKTON LLC	***3028 NAVY DR***	***NE 0 - 1/8 (0.055 mi.)***	***B69***	***110***
TIME OIL CO	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B71***	***112***
TIME OIL CO.	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B73***	***119***
YARA NORTH AMERICA	***3019 NAVY DR***	***NE 0 - 1/8 (0.056 mi.)***	***B74***	***122***
HYDRO AGRI NORTH AMERICA	***3019 NAVY ST***	***NE 0 - 1/8 (0.056 mi.)***	***B76***	***124***
TXI RIVERSIDE CEMENT CO	***2845 W WASHINGTON ST***	***NE 0 - 1/8 (0.109 mi.)***	***B83***	***132***
TRI-DELTA FERTILIZER INC	2835 W WASHINGTON ST	NE 0 - 1/8 (0.114 mi.)	B85	135
1X RIVERSIDE CEMENT COMPANY	2825 WEST WASHINGTON ST	NE 0 - 1/8 (0.119 mi.)	B91	153
BAY SULFUR COMPANY	***2717 W WASHINGTON ST***	***NE 1/8 - 1/4 (0.181 mi.)***	***E107***	***167***
BP WEST COAST PRODUCTS LLC	***2700 W WASHINGTON ST***	***NE 1/8 - 1/4 (0.190 mi.)***	***E108***	***169***
HJ BAKER & BRO INC	***65 STORK ROAD***	***NE 1/8 - 1/4 (0.215 mi.)***	***E122***	***189***

EXECUTIVE SUMMARY

EMI: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2008 has revealed that there are 16 EMI sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TIME OIL	3000 NAVY DRIVE	N 1/8 - 1/4 (0.153 mi.)	D99	160

Lower Elevation	Address	Direction / Distance	Map ID	Page
NUSTAR TERMINALS OPERATIONS PA	***2941 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A17***	***33***
S T SERVICES	***2941 NAVY DR***	***NE 0 - 1/8 (0.041 mi.)***	***A23***	***45***
KMEP - STOCKTON TERMINAL	***2947 NAVY DRIVE***	***NE 0 - 1/8 (0.041 mi.)***	***A50***	***79***
TESORO PETROLEUM CORP	***3003 NAVY DR***	***NE 0 - 1/8 (0.052 mi.)***	***A61***	***94***
TOSORO REFIN,MRKTG,&SUPPLY	3003 W NAVY DR	NE 0 - 1/8 (0.052 mi.)	A66	108
TIME OIL CO.	***3015 NAVY DRIVE***	***NE 0 - 1/8 (0.055 mi.)***	***B73***	***119***
PACIFIC CUSTOM MATERIALS	2845 W. WASHINGTON ST	NE 0 - 1/8 (0.109 mi.)	B81	130
PACIFIC CUSTOM MATERIALS	2845 W. WASHINGTON STRE	NE 0 - 1/8 (0.109 mi.)	B82	131
TXI RIVERSIDE CEMENT CO	***2845 W WASHINGTON ST***	***NE 0 - 1/8 (0.109 mi.)***	***B83***	***132***
LESCO, INC	2829 W WASHINGTON ST	NE 0 - 1/8 (0.117 mi.)	B89	150
MARTIN OPERATING PARTNERSHIP	***2717 WEST WASHINGTON ST***	***NE 1/8 - 1/4 (0.181 mi.)***	***E104***	***163***
BP WEST COAST PRODUCTS LLC	***2700 W WASHINGTON ST***	***NE 1/8 - 1/4 (0.190 mi.)***	***E108***	***169***
ARCO PRODUCTS COMPANY	2700 W WASHINGTON STREE	NE 1/8 - 1/4 (0.190 mi.)	E109	173
H.J. BAKER & BROS INC.	65 STORK ROAD	NE 1/8 - 1/4 (0.215 mi.)	E123	191
DB WESTERN INC CA	***2650 W WASHINGTON ST***	***NE 1/8 - 1/4 (0.220 mi.)***	***E127***	***194***

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 08/09/2010 has revealed that there is 1 HWP site within approximately 1.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PAT X-RAY CO INC	***711 SAN JUAN AVE***	***NE 1 - 2 (1.184 mi.)***	***M166***	***319***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 40 records.

Site Name	Database(s)
NAVCOMTELSTA SAN DIEGO DET STOCKTO	ENVIROSTOR,HWP
PACIFIC ETHANOL INC STOCKTON SITE	NPDES
STOCKTON MOSS GARDEN EAST	NPDES
INLAND COLD STORAGE PORT OF STOCKT	NPDES
CALIFORNIA AMMONIA COMPANY	EMI,HAZNET,NPDES
RICE TERMINALS	CHMIRS,NPDES
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
STOCKTON NCS - ROUGH AND READY ISL	MCS
INLAND RD, 1 MI S OF HIGHWAY 4	CDL
CORNER OF HWY 26 & ALPINE RD	CDL
DAGGET RD .75 MI N OF HIGHWAY	CDL
4307 S HWY 99 FRONTAGE ROAD	CDL
ROBERTS RD, 1/2 MI S OF HIGHWA	CDL
KINGS ISLAND	UST ALAMEDA
PETES PLACE LLC	UST ALAMEDA
JOHN CERRI	UST ALAMEDA
PG&E ROUGH & READY SUBSTATION	HAZNET
CENTRAL CALIFORNIA TRACTION COMPAN	HAZNET
WEST WAY TERMINAL CO INC	HAZNET
INLAND COLD STORAGE STOCKTON	HAZNET
ALCO IRON AND METAL CO	SWRCY

OVERVIEW MAP - 3127420.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

0 1/2 1 2 Miles

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Proposed Targa Stockton Terminaling & Storage Faci ADDRESS: Navy Drive Stockton CA 95206 LAT/LONG: 37.9428 / 121.3393	CLIENT: TRC CONTACT: Angela Chen INQUIRY #: 3127420.2s DATE: July 19, 2011 7:32 pm

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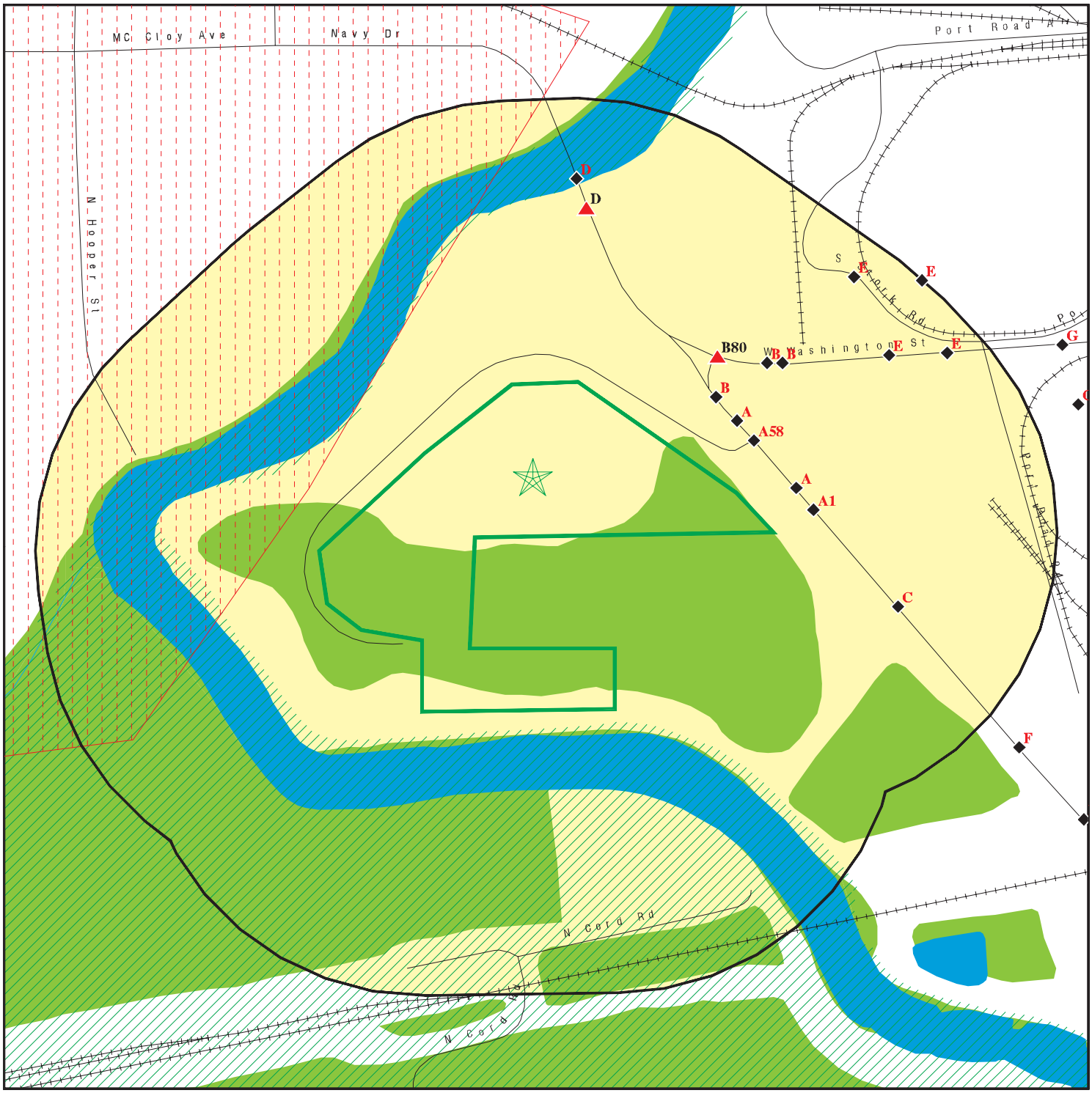
DETAIL MAP - 3127420.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Oil & Gas pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Proposed Targa Stockton Terminaling & Storage Faci	CLIENT:	TRC
ADDRESS:	Navy Drive Stockton CA 95206	CONTACT:	Angela Chen
		INQUIRY #:	3127420.2s
LAT/LONG:	37.9428 / 121.3393	DATE:	July 19, 2011 7:33 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.250	0	0	0	0	0	0
Proposed NPL		1.250	0	0	0	0	0	0
NPL LIENS		0.250	0	0	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.250	0	0	0	0	0	0
Federal CERCLIS list								
CERCLIS		0.750	0	0	1	1	NR	2
FEDERAL FACILITY		1.250	0	0	0	0	0	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.750	0	0	0	0	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS		1.250	0	0	0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		0.750	0	0	0	0	NR	0
Federal RCRA generators list								
RCRA-LQG		0.500	2	1	1	NR	NR	4
RCRA-SQG		0.500	5	0	1	NR	NR	6
RCRA-CESQG		0.500	0	0	0	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.750	0	0	0	0	NR	0
US INST CONTROL		0.750	0	0	0	0	NR	0
Federal ERNS list								
ERNS		0.250	37	5	NR	NR	NR	42
State- and tribal - equivalent NPL								
RESPONSE		1.250	0	0	0	2	2	4
State- and tribal - equivalent CERCLIS								
ENVIROSTOR		1.250	3	0	1	4	3	11
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.750	0	0	0	1	NR	1
State and tribal leaking storage tank lists								
LUST		0.750	2	1	1	4	NR	8
SLIC		0.750	9	3	4	6	NR	22

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST		0.750	0	0	0	0	NR	0
State and tribal registered storage tank lists								
UST		0.500	6	2	3	NR	NR	11
AST		0.500	3	2	2	NR	NR	7
INDIAN UST		0.500	0	0	0	NR	NR	0
FEMA UST		0.500	0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP		0.750	0	0	1	0	NR	1
INDIAN VCP		0.750	0	0	0	0	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.750	0	0	0	0	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9		0.750	0	0	0	0	NR	0
ODI		0.750	0	0	0	0	NR	0
WMUDS/SWAT		0.750	0	1	0	0	NR	1
SWRCY		0.750	0	0	0	0	NR	0
HAULERS		0.250	0	0	NR	NR	NR	0
INDIAN ODI		0.750	0	0	0	0	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		0.250	0	0	NR	NR	NR	0
HIST Cal-Sites		1.250	0	0	0	2	2	4
SCH		0.500	0	0	0	NR	NR	0
Toxic Pits		1.250	0	0	0	0	0	0
CDL		0.250	0	0	NR	NR	NR	0
US HIST CDL		0.250	0	0	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST		0.500	6	1	2	NR	NR	9
HIST UST		0.500	8	1	1	NR	NR	10
SWEEPS UST		0.500	8	1	2	NR	NR	11
Local Land Records								
LIENS 2		0.250	0	0	NR	NR	NR	0
LUCIS		0.750	0	0	0	0	NR	0
LIENS		0.250	0	0	NR	NR	NR	0
DEED		0.750	0	0	0	0	NR	0
Records of Emergency Release Reports								
HMIRS		0.250	1	0	NR	NR	NR	1
CHMIRS		0.250	8	5	NR	NR	NR	13
LDS		0.250	0	2	NR	NR	NR	2

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MCS		0.250	0	0	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.500	2	0	1	NR	NR	3
DOT OPS		0.250	0	0	NR	NR	NR	0
DOD		1.250	1	0	0	0	0	1
FUDS		1.250	0	0	0	1	0	1
CONSENT		1.250	0	0	0	0	0	0
ROD		1.250	0	0	0	0	0	0
UMTRA		0.750	0	0	0	0	NR	0
MINES		0.500	0	0	0	NR	NR	0
TRIS		0.250	0	0	NR	NR	NR	0
TSCA		0.250	0	0	NR	NR	NR	0
FTTS		0.250	0	0	NR	NR	NR	0
HIST FTTS		0.250	0	0	NR	NR	NR	0
SSTS		0.250	2	0	NR	NR	NR	2
ICIS		0.250	1	0	NR	NR	NR	1
PADS		0.250	0	0	NR	NR	NR	0
MLTS		0.250	0	0	NR	NR	NR	0
RADINFO		0.250	0	0	NR	NR	NR	0
FINDS		0.250	12	4	NR	NR	NR	16
RAATS		0.250	0	0	NR	NR	NR	0
CA BOND EXP. PLAN		1.250	0	0	0	0	3	3
WDS		0.250	3	2	NR	NR	NR	5
NPDES		0.250	5	6	NR	NR	NR	11
Cortese		0.750	0	0	0	1	NR	1
HIST CORTESE		0.500	3	1	1	NR	NR	5
Notify 65		1.250	1	0	0	0	0	1
DRYCLEANERS		0.500	0	0	0	NR	NR	0
WIP		0.500	0	0	0	NR	NR	0
HAZNET		0.250	16	3	NR	NR	NR	19
EMI		0.250	10	6	NR	NR	NR	16
INDIAN RESERV		1.250	0	0	0	0	0	0
SCRD DRYCLEANERS		0.750	0	0	0	0	NR	0
HWP		1.250	0	0	0	0	1	1
HWT		0.500	0	0	0	NR	NR	0
COAL ASH EPA		0.750	0	0	0	0	NR	0
FINANCIAL ASSURANCE		0.250	0	0	NR	NR	NR	0
PCB TRANSFORMER		0.250	0	0	NR	NR	NR	0
PROC		0.750	0	0	0	0	NR	0
MWMP		0.500	0	0	0	NR	NR	0
COAL ASH DOE		0.250	0	0	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.250	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

DOD **STOCKTON NAVAL COMMUNICATIONS STATION** **DOD** **CUSA135913**
Region **N/A**
NW **STOCKTON NAVAL COMMUNICAT (County), CA**
< 1/8
203 ft.

DOD:

Feature 1:	Navy DOD
Feature 2:	Not reported
Feature 3:	Not reported
URL:	Not reported
Name 1:	Stockton Naval Communications Station
Name 2:	Not reported
Name 3:	Not reported
State:	CA
DOD Site:	Yes
Tile name:	CASAN_JOAQUIN

A1 **STOCKTON SALES TERMINAL** **HIST UST** **U001603306**
ENE **2941 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95203**
0.041 mi.
214 ft. **Site 1 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

HIST UST:

Region:	STATE
Facility ID:	00000068725
Facility Type:	Other
Other Type:	PETROLEUM PRODUCTS S
Total Tanks:	0001
Contact Name:	B.L. ROWLAND
Telephone:	9163639426
Owner Name:	TEXACO USA
Owner Address:	P.O. BOX 3756 - 3350 WILSHIRE
Owner City,St,Zip:	LOS ANGELES, CA 90010
Tank Num:	001
Container Num:	100
Year Installed:	Not reported
Tank Capacity:	00005000
Tank Used for:	WASTE
Type of Fuel:	6U
Tank Construction:	Unkown inches
Leak Detection:	Stock Inventor

A2 **CHMIRS** **S109038153**
NE **2941 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 2 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

CHMIRS:

OES Incident Number:	06-4208
OES notification:	7/17/2006 09:29:26 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**

(Continued) **S109038153**

Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	NRC
Incident Date:	7/17/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Merchant/Business
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	100
Grams:	0
Pounds:	0

(Continued) **S109038153**

Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Per NRC Fax, Caller stated there was a release of materials from a tanker truck due to an operator over filling the tank.Clean-u is underway and a contractor has been hired.
OES Incident Number:	06-4556
OES notification:	8/1/2006 10:01:07 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported

(Continued) **S109038153**

Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	ST Services
Incident Date:	7/30/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Industrial Plant
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	150
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Per caller, equipment failure and driver error caused the release.
OES Incident Number:	06-6971
OES notification:	11/24/2006 03:58:13 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported

(Continued) **S109038153**

Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Valero
Incident Date:	11/24/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Industrial Plant
E Date:	Not reported
Substance:	diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	40-50
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Per caller, terminal at location, truck loading rack, appears internal sensors did not work, and overfilled tank, spilled on concrete. reporting party sis doing cleanup, putting in drum for disposal.
OES Incident Number:	06-7541
OES notification:	12/21/2006 02:49:05 PM
OES Date:	Not reported
OES Time:	Not reported

(Continued) **S109038153**

Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	NRC
Incident Date:	12/21/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	6

(Continued) **S109038153**

Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	CALLER REPORTS A TRANSPORT TRUCK CARGO TANK DISCHARGED 5 GALLONS OF DIESEL FUEL INTO THE ENVIRONMENT WHILE TAKING ON FUEL FROM A LOADING RACK. THE DISCHARGE WAS DUE TO THE TANK OVERFLOWING. THE CARGO TANK HAS 3 COMPARTMENTS WITH A 4000 GALLON CAPACITTY TOTAL.

A3 **SUPPLY TERMINAL SERVICES** **LUST** **S109285469**
NE **2941 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 3 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

LUST:

Region:	STATE
Global Id:	T0607700032
Latitude:	37.9418522
Longitude:	-121.3341988
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	2000-04-28 00:00:00
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Case Worker:	MWC
Local Agency:	SAN JOAQUIN COUNTY LOP
RB Case Number:	390049
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0607700032
Contact Type:	Regional Board Caseworker
Contact Name:	MARK W. CLARDY
Organization Name:	CENTRAL VALLEY RWQCB (REGION 5S)
Address:	11020 SUN CENTER DRIVE #200
City:	RANCHO CORDOVA
Email:	mclardy@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0607700032
Contact Type:	Local Agency Caseworker
Contact Name:	MARGARET LAGORIO
Organization Name:	SAN JOAQUIN COUNTY LOP
Address:	600 E. MAIN

SUPPLY TERMINAL SERVICES (Continued) **S109285469**

City: STOCKTON
Email: mlagorio@sjcehd.com
Phone Number: Not reported

LUST:
Global Id: T0607700032
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Discovery

Global Id: T0607700032
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Reported

A4 NE < 1/8 0.041 mi. 218 ft. | **DAVE MARDEN TRUCKING** | **RCRA-SQG FINDS** | **1000197518 CAD981410939**
2941 NAVY DRIVE
STOCKTON, CA 95206

Site 4 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: DAVE MARDEN TRUCKING
Facility address: 2941 NAVY DRIVE
STOCKTON, CA 95206
EPA ID: CAD981410939
Mailing address: NAVY DRIVE
STOCKTON, CA 95206
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: DAVE MARDEN
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED

DAVE MARDEN TRUCKING (Continued) **1000197518**

NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110009535743

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A5 **NUSTAR TERMINAL SVCS INC** **UST** **U004024989**
NE **2941 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 5 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

UST SAN JOAQUIN:
Region: SJ
Facility Id: FA0005529
Mail Address: 2941 NAVY DR
Mail Care of: TEXACO USA
Mail City,St,Zip: STOCKTON, CA 95206

Tank Rec ID: TA0502673
Tank Number: 1
Tank Status: CLOSED
Tank Capacity: 5000
Product Type: 1A

NUSTAR TERMINAL SVCS INC (Continued) **U004024989**

Product Type Desc: REGULAR UNLEADED
Program Element: 2380

Tank Rec ID: TA0503539
Tank Number: 1
Tank Status: CLOSED
Tank Capacity: 100
Product Type: 99
Product Type Desc: OTHER
Program Element: 2380

Tank Rec ID: TA0503540
Tank Number: 2
Tank Status: CLOSED
Tank Capacity: 10000
Product Type: 1A
Product Type Desc: REGULAR UNLEADED
Program Element: 2380

Tank Rec ID: TA0503541
Tank Number: 3
Tank Status: CLOSED
Tank Capacity: 0
Product Type: 1A
Product Type Desc: REGULAR UNLEADED
Program Element: 2380

Tank Rec ID: TA0503542
Tank Number: 4
Tank Status: CLOSED
Tank Capacity: 4000
Product Type: 1A
Product Type Desc: REGULAR UNLEADED
Program Element: 2380

A6 **ST SERVICES** **WDS** **S100945772**
NE **2941 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 6 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

CA WDS:
Facility ID: Sacramento-San Joaquin Delta 39NC00023
Facility Type: Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: Not reported
Subregion: 0
Facility Telephone: 9252283227
Facility Contact: RICHARD BRANDES
Agency Name: ST SERVICES
Agency Address: 2941 NAVY DR
Agency City,St,Zip: STOCKTON 952061149

ST SERVICES (Continued) **S100945772**

Agency Contact:	RICHARD BRANDES
Agency Telephone:	9252283227
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.
Facility ID:	5S 39I001261
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2099435662
Facility Contact:	MR MARK SPERLING
Agency Name:	ST SERVICES
Agency Address:	17304 Preston Rd Ste 1000
Agency City,St,Zip:	Dallas 752525623
Agency Contact:	KYLE J MULLINS
Agency Telephone:	2149318065
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared

ST SERVICES (Continued) **S100945772**

to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.

Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

A7 **2941 NAVY DRIVE** **ERNS** **2002609244**
NE **2941 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 7 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A8 **NUSTAR TERMINALS OPERATIONS PARTNERSHIP LP** **NPDES** **S101592646**
NE **2941 NAVY DR** **CA FID UST** **N/A**
< 1/8 **STOCKTON, CA 95206** **SLIC**
0.041 mi. **SWEEPS UST**
218 ft. **Site 8 of 67 in cluster A** **HAZNET**

Relative:
Lower

Actual:
6 ft.

NPDES:

Npdes Number:	CAS000002
Facility Status:	Terminated
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39C344863
Program Type:	Construction
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	12/11/2006 10:41:00 AM
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	11/16/2007
Discharge Name:	Port of Stockton
Discharge Address:	2201 W Washington St
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95201

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I001261
Program Type:	Industrial

NUSTAR TERMINALS OPERATIONS PARTNERSHIP LP (Continued) **S101592646**

Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	3/27/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	NuStar Terminals Operations Partnership LP
Discharge Address:	2941 Navy Dr
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95206

CA FID UST:

Facility ID:	39000062
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2099435662
Mail To:	Not reported
Mailing Address:	2941 NAVY DR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95206
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SLIC:

Region:	5
Facility Status:	Feasibility Study
Unit:	Facility is a Spill or site
Pollutant:	BTEX, TPH-g, -d, MTBE
Lead Agency:	DLL
Date Filed:	/ /
Report Date:	/ /
Date Added:	Not reported
Date Closed:	Not reported

SWEEPS UST:

Status:	Not reported
Comp Number:	1206
Number:	Not reported
Board Of Equalization:	44-000285
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001206-000001
Actv Date:	Not reported
Capacity:	100
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	LEADED

NUSTAR TERMINALS OPERATIONS PARTNERSHIP LP (Continued) **S101592646**

Number Of Tanks: 4

Status: Not reported
Comp Number: 1206
Number: Not reported
Board Of Equalization: 44-000285
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001206-000002
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: WASTE
Content: WATER & MIXE
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 1206
Number: Not reported
Board Of Equalization: 44-000285
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001206-000003
Actv Date: Not reported
Capacity: 1
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 1206
Number: Not reported
Board Of Equalization: 44-000285
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001206-000004
Actv Date: Not reported
Capacity: 4000
Tank Use: M.V. FUEL
Stg: WASTE
Content: WATER & FUEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 1207
Number: Not reported
Board Of Equalization: Not reported

NUSTAR TERMINALS OPERATIONS PARTNERSHIP LP (Continued) **S101592646**

Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001207-000001
Actv Date:	Not reported
Capacity:	5000
Tank Use:	CHEMICAL
Stg:	PRODUCT
Content:	ADDITIVE PET
Number Of Tanks:	1

HAZNET:

Year:	2009
Gepaid:	CAT000617514
Contact:	DANIEL THOMAS
Telephone:	2099435662
Mailing Name:	Not reported
Mailing Address:	2368 MARITIME DRIVE SUITE 275
Mailing City,St,Zip:	ELK GROVE, CA 957580000
Gen County:	San Joaquin
TSD EPA ID:	CAD980675276
TSD County:	Kern
Waste Category:	Other organic solids
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.225
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAT000617514
Contact:	DANIEL THOMAS
Telephone:	2099435662
Mailing Name:	Not reported
Mailing Address:	2368 MARITIME DRIVE SUITE 275
Mailing City,St,Zip:	ELK GROVE, CA 957580000
Gen County:	San Joaquin
TSD EPA ID:	CAD059494310
TSD County:	Santa Clara
Waste Category:	Other organic solids
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.7
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAT000617514
Contact:	DANIEL THOMAS
Telephone:	2099435662
Mailing Name:	Not reported
Mailing Address:	2368 MARITIME DRIVE SUITE 275
Mailing City,St,Zip:	ELK GROVE, CA 957580000
Gen County:	San Joaquin
TSD EPA ID:	CAD980675276
TSD County:	Kern
Waste Category:	Contaminated soil from site clean-up

NUSTAR TERMINALS OPERATIONS PARTNERSHIP LP (Continued) **S101592646**

Disposal Method: LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons: 0.25
Facility County: San Joaquin

Year: 2009
Gepaid: CAT000617514
Contact: DANIEL THOMAS
Telephone: 2099435662
Mailing Name: Not reported
Mailing Address: 2368 MARITIME DRIVE SUITE 275
Mailing City,St,Zip: ELK GROVE, CA 957580000
Gen County: San Joaquin
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Unspecified organic liquid mixture
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 10.214
Facility County: San Joaquin

Year: 2009
Gepaid: CAT000617514
Contact: DANIEL THOMAS
Telephone: 2099435662
Mailing Name: Not reported
Mailing Address: 2368 MARITIME DRIVE SUITE 275
Mailing City,St,Zip: ELK GROVE, CA 957580000
Gen County: San Joaquin
TSD EPA ID: UTD981552177
TSD County: 99
Waste Category: Other organic solids
Disposal Method: INCINERATION--THERMAL DESTRUCTION OTHER THAN USE AS A FUEL
Tons: 1.4478
Facility County: San Joaquin

Click this hyperlink while viewing on your computer to access
21 additional CA_HAZNET: record(s) in the EDR Site Report.

A9 **2941 NAVY DRIVE** **ERNS** **2005609090**
NE **2941 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 9 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access
additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A10 **NUSTAR TERMINAL SVCS INC** **AST** **A100338171**
NE **2941 NAVY** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 10 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

AST:

Owner:	NUSTAR TERMINAL OPERATING PTN
Total Gallons:	16,323,392
Certified Unified Program Agencies:	San Joaquin

A11 **CHMIRS** **S105651711**
NE **2941 NAVY DR.** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 11 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

CHMIRS:

OES Incident Number:	02-1682
OES notification:	3/27/200202:23:23 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Responsible Party
Containment:	Not reported

(Continued) **S105651711**

What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2002
Agency:	ST Services
Incident Date:	3/27/200212:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Ship/Harbor/Port
E Date:	Not reported
Substance:	Unleaded Gasoline
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Some seepage was noticed from a tank in a tank farm. The tank is being emptied now and absorbents have been placed around the tank. This is occurring in a diked area.
OES Incident Number:	06-4518
OES notification:	7/30/2006 10:14:09 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported

(Continued) **S105651711**

Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	NRC
Incident Date:	7/30/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	155
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	A tanker truck drove off with the loading arm still connected to the truck resulting in gasoline spilling on the ground.
OES Incident Number:	97-1191
OES notification:	3/23/199707:59:07 AM
OES Date:	Not reported

(Continued) **S105651711**

OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1997
Agency:	ST SERVICES
Incident Date:	3/23/199712:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	DIESEL
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0

(Continued) **S105651711**

Gallons:	500
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	OPERATOR MISSED A SWITCH CAUSING AN OVERFLOW
OES Incident Number:	02-2142
OES notification:	4/19/200206:13:46 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported

(Continued) **S105651711**

What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2002
Agency:	ST Services
Incident Date:	4/19/200212:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Oil Field
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Leak developed in a storage tank. The spill is contained in a diked area. Product is currently being transferred to another tank.
OES Incident Number:	02-3128
OES notification:	6/7/200203:24:49 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported

(Continued) **S105651711**

Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2002
Agency:	ST Services
Incident Date:	6/7/200212:00:00 AM
Admin Agency:	ERROR: Server error: Entry not found in index
Amount:	Not reported
Contained:	Yes
Site Type:	Refinery
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	unknown
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Operator overfilled storage tank.

A12 NE < 1/8 0.041 mi. 218 ft. — **2941 NAVY DRIVE** / **2941 NAVY DRIVE** / **STOCKTON, CA 95206** — **ERNS** — **2005631399** / **N/A**

Site 12 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A13 NE < 1/8 0.041 mi. 218 ft. — **WILLIAMS TANK LINES** / **2941 NAVY DR** / **STOCKTON, CA 95206** — **RCRA-NonGen** / **FINDS** / **HIST UST** / **HAZNET** — **1000284196** / **CAD080139033**

Site 13 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

RCRA-NonGen:

Date form received by agency:	08/14/1986
Facility name:	WILLIAMS TANK LINES
Facility address:	2941 NAVY DR STOCKTON, CA 95206
EPA ID:	CAD080139033
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	WILLIAMS TANK LINES INC
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No

WILLIAMS TANK LINES (Continued) **1000284196**

On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110009531854

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HIST UST:
Region: STATE
Facility ID: 00000052297
Facility Type: Other
Other Type: TRANSPORT
Total Tanks: 0001
Contact Name: MIKE WILLIAMS
Telephone: 2099445613
Owner Name: S. T. SERVICES
Owner Address: 2941 NAVY DR.
Owner City,St,Zip: STOCKTON, CA 95206

Tank Num: 001
Container Num: 1
Year Installed: 1978
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: Pressure Test

HAZNET:
Year: 1997
Gepaid: CAD080139033
Contact: CORPORATION
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1477 TILLIE LEWIS DR
Mailing City,St,Zip: STOCKTON, CA 952060000
Gen County: San Joaquin
TSD EPA ID: CAT080013352
TSD County: Los Angeles

WILLIAMS TANK LINES (Continued) **1000284196**

Waste Category: Off-specification, aged or surplus organics
Disposal Method: R01
Tons: 6.0465
Facility County: San Joaquin

A14
NE
< 1/8
0.041 mi.
218 ft.

STANDARD TRANSMISSION TERMINAL **HIST UST** **U001603730**
2941 NAVY DR **N/A**
STOCKTON, CA 95206

Site 14 of 67 in cluster A

Relative:
Lower

Actual:
6 ft.

HIST UST:
Region: STATE
Facility ID: 00000035832
Facility Type: Other
Other Type: PETROLEUM TERMINAL
Total Tanks: 0001
Contact Name: RICK ZIMMERMAN
Telephone: 2099435662
Owner Name: EXXON CO. USA
Owner Address: 3410 E. SECOND ST.
Owner City,St,Zip: BENICIA, CA 94510

Tank Num: 001
Container Num: EXN-1
Year Installed: Not reported
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: None

A15
NE
< 1/8
0.041 mi.
218 ft.

2941 NAVY DRIVE **ERNS** **2002597805**
2941 NAVY DRIVE **N/A**
STOCKTON, CA 95206

Site 15 of 67 in cluster A

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A16
NE
< 1/8
0.041 mi.
218 ft.

2941 NAVY DRIVE **HMIRS** **2009051277**
2941 NAVY DRIVE **N/A**
STOCKTON, CA 95206

Site 16 of 67 in cluster A

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional HMIRS detail in the EDR Site Report.

Actual:
6 ft.

A17	**NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL)**	**RCRA-LQG**	**1000109408**
NE	**2941 NAVY DRIVE**	**FINDS**	**CAT000617514**
< 1/8	**STOCKTON, CA 95206**	**SLIC**	
0.041 mi.		**CHMIRS**	
218 ft.	**Site 17 of 67 in cluster A**	**HAZNET**	
		EMI	

Relative:
Lower

Actual:
6 ft.

RCRA-LQG:

Date form received by agency:	09/13/2010
Facility name:	NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL)
Facility address:	2941 NAVY DRIVE STOCKTON, CA 95206
EPA ID:	CAT000617514
Mailing address:	NAVY DRIVE STOCKTON, CA 95206
Contact:	DANIEL M THOMAS
Contact address:	NAVY DRIVE STOCKTON, CA 95206
Contact country:	Not reported
Contact telephone:	(209) 943-5662
Contact email:	DANIEL.THOMAS@NUSTARENERGY.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	NUSTAR TERMINALS OPERATIONS PTNRSP LP
Owner/operator address:	NORTH LOOP 1604 WEST SAN ANTONIO, CA 78248
Owner/operator country:	Not reported
Owner/operator telephone:	(210) 345-2000
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	11/01/1998
Owner/Op end date:	Not reported
Owner/operator name:	NUSTAR TERMINALS OPERATIONS PTNRSP LP
Owner/operator address:	NORTH LOOP 1604 WEST SAN ANTONIO, CA 78248
Owner/operator country:	US
Owner/operator telephone:	(210) 345-2000
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	11/01/1998
Owner/Op end date:	Not reported
Owner/operator name:	SHORE TERMINALS LLC / VALERO LP
Owner/operator address:	Not reported

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	11/01/1998
Owner/Op end date:	Not reported

Owner/operator name:	SHORE TERMINALS LLC / VALERO LP
Owner/operator address:	90 SAN PABLO AVENUE CROCKETT, CA 94525
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	11/01/1998
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	STC CORP
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

Date form received by agency: 02/29/2008
Facility name: NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL)
Site name: ST SERVICES LLC (STOCKTON TERMINAL)
Classification: Large Quantity Generator

Date form received by agency: 02/24/2006
Facility name: NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL)
Site name: STOCKTON TERMINAL
Classification: Small Quantity Generator

Date form received by agency: 02/24/2006
Facility name: NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL)
Site name: STOCKTON TERMINAL
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL)
Site name: STC CORP AT STOCKTON
Classification: Small Quantity Generator

Date form received by agency: 08/18/1980
Facility name: NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL)
Site name: STC CORP AT STOCKTON
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Waste code: 134
Waste name: 134

Waste code: 135
Waste name: 135

Waste code: 181
Waste name: 181

Waste code: 212
Waste name: 212

Waste code: 213
Waste name: 213

Waste code: 221
Waste name: 221

Waste code: 223

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

Waste name: 223

Waste code: 231
Waste name: 231

Waste code: 331
Waste name: 331

Waste code: 343
Waste name: 343

Waste code: 352
Waste name: 352

Waste code: 512
Waste name: 512

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D005
Waste name: BARIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D018
Waste name: BENZENE

Waste code: D035
Waste name: METHYL ETHYL KETONE

Biennial Reports:

Last Biennial Reporting Year: 2011

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Amount (Lbs): 113800

Waste code: D008
Waste name: LEAD
Amount (Lbs): 350

Waste code: D018
Waste name: BENZENE
Amount (Lbs): 112200

Violation Status: No violations found

FINDS:

Registry ID: 110009554963

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US Facility Response Plan (FRP) contains plans for responding, to the maximum extent practical, to worst case discharges of oil.

SLIC:
Region: STATE

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

Facility Status:	**Open - Remediation**
Status Date:	2004-01-01 00:00:00
Global Id:	SL0607733381
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.9403900118077
Longitude:	-121.332535743713
Case Type:	Cleanup Program Site
Case Worker:	KAS
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil, Soil Vapor, Surface water, Under Investigation
Potential Contaminants of Concern:	Fuel Oxygenates, * Petroleum - Diesel fuels, * Petroleum - Automotive gasolines
Site History:	Site has been used for fuel distribution since the 1960's. There are 17 AGTs in a containment area which store gasoline, diesel, that are received via pipeline. Ethanol is in an 80,000 barrell tank. Oxygenates are stored in a 1,000 gallon tank by the truck rack and is trucked in as is the red dye. SPH was observed by ST/MW between 1992 and 1994. Gasoline releases occurred from AGT No. 3301 in March 2002. An additional gasoline release occurred from AGT No. 3302 in April 2002. Six months following the release 2.3 feet of SPH was observed in ST/MW-1. 1,000 gallons of diesel was released from AST No. 1503 in June 2002. Fuel impacted soil was excavated and removed.

Click here to access the California GeoTracker records for this facility:

CHMIRS:

OES Incident Number:	06-6043
OES notification:	10/11/2006 11:43:13 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Valero LP
Incident Date:	10/11/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	10
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Released when a carrier was loading in the truck rack, their sensors did not work and they overfilled the tank. Released onto the concrete in the secondary containment. It has already been cleaned up.
OES Incident Number:	05-6552
OES notification:	11/12/200509:36:23 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	NRC
Incident Date:	11/12/200512:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Red Dye Additive
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	150
Grams:	0
Pounds:	0
Liters:	0

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Per fax from the NRC: A tank overflowed due to an unknown causes resulting in a release of diesel additive onto the ground. Remedial Actions: Clean up underway, contractor will be hired to remove affected soil.
OES Incident Number:	01-4377
OES notification:	7/31/200108:54:53 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2001
Agency:	ST Services
Incident Date:	7/30/200112:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	gasoline
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	30
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0.000000
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Release caused by a defect in an above ground storage tank, possibly a weld leaking.

HAZNET:

Year:	2006
Gepaid:	CAT000617514
Contact:	R BRANDES/HSE WEST RGNL MGR
Telephone:	5107877294
Mailing Name:	Not reported
Mailing Address:	90 SAN PABLO AVE
Mailing City,St,Zip:	CROCKETT, CA 945250000
Gen County:	San Joaquin
TSD EPA ID:	AZD009015389
TSD County:	99
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	H06
Tons:	0.22
Facility County:	San Joaquin

Year:	2005
Gepaid:	CAT000617514
Contact:	RICHARD BRANDES
Telephone:	9252283227
Mailing Name:	Not reported
Mailing Address:	2801 WATERFRONT RD
Mailing City,St,Zip:	MARTINEZ, CA 945530000
Gen County:	San Joaquin

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: R01
Tons: 8.26
Facility County: Not reported

Year: 2004
Gepaid: CAT000617514
Contact: RICHARD BRANDES
Telephone: 9252283227
Mailing Name: Not reported
Mailing Address: 2801 WATERFRONT RD
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: San Joaquin
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: R01
Tons: 8.26
Facility County: Not reported

Year: 2003
Gepaid: CAT000617514
Contact: RICHARD BRANDES
Telephone: 9252283227
Mailing Name: Not reported
Mailing Address: 2801 WATERFRONT RD
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: San Joaquin
TSD EPA ID: CAD028409019
TSD County: San Joaquin
Waste Category: Off-specification, aged or surplus organics
Disposal Method: T01
Tons: 0.12
Facility County: San Joaquin

Year: 2003
Gepaid: CAT000617514
Contact: RICHARD BRANDES
Telephone: 9252283227
Mailing Name: Not reported
Mailing Address: 2801 WATERFRONT RD
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: San Joaquin
TSD EPA ID: CAD028409019
TSD County: San Joaquin
Waste Category: Other organic solids
Disposal Method: H01
Tons: 0.25
Facility County: San Joaquin

Click this hyperlink while viewing on your computer to access
13 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:
Year: 2006

NUSTAR TERMINALS OPERATIONS PARTNERSHIP L.P. (MAIN TERMINAL) (Continued) **1000109408**

County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	25.12623096379298604
Reactive Organic Gases Tons/Yr:	17.623813490966797
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	13.75365495506265543
Reactive Organic Gases Tons/Yr:	9.6530725738525338
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

A18 **2941 NAVY DRIVE** **ERNS** **2007328460**
NE **2941 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 18 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A19 **2941 NAVY DRIVE** **ERNS** **2006821741**
NE **2941 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 19 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A20
NE
< 1/8
0.041 mi.
218 ft.

2941 NAVY DR. — **ERNS** — **90186243**
2941 NAVY DR. — **N/A**
STOCKTON, CA 95206

Site 20 of 67 in cluster A

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A21
NE
< 1/8
0.041 mi.
218 ft.

2941 NAVY DRIVE — **ERNS** — **2007313789**
2941 NAVY DRIVE — **N/A**
STOCKTON, CA 95206

Site 21 of 67 in cluster A

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A22
NE
< 1/8
0.041 mi.
218 ft.

2941 NAVY DRIVE — **ERNS** — **2006819025**
2941 NAVY DRIVE — **N/A**
STOCKTON, CA

Site 22 of 67 in cluster A

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A23
NE
< 1/8
0.041 mi.
218 ft.

S T SERVICES — **HIST UST** — **U001603716**
2941 NAVY DR — **EMI** — **N/A**
STOCKTON, CA 95206

Site 23 of 67 in cluster A

Relative:
Lower

Actual:
6 ft.

HIST UST:

Region:	STATE
Facility ID:	00000008376
Facility Type:	Other
Other Type:	BULK STORAGE
Total Tanks:	0004
Contact Name:	RICHARD ZIMMERMAN
Telephone:	2099435662
Owner Name:	S T SERVICES
Owner Address:	17000 DALLAS PARKWAY SUITE 223
Owner City,St,Zip:	DALLAS, TX 75248
Tank Num:	001
Container Num:	#1
Year Installed:	Not reported
Tank Capacity:	00000100
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Tank Construction:	Not reported
Leak Detection:	None
Tank Num:	002
Container Num:	#2
Year Installed:	1983
Tank Capacity:	00010000

S T SERVICES (Continued) **U001603716**

Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4 inches
Leak Detection: None

Tank Num: 003
Container Num: #4
Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Visual

Tank Num: 004
Container Num: #3
Year Installed: Not reported
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Visual

EMI:

Year:	1987
County Code:	39
Air Basin:	SJV
Facility ID:	75
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	34
Reactive Organic Gases Tons/Yr:	34
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	39
Air Basin:	SJV
Facility ID:	75
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	38
Reactive Organic Gases Tons/Yr:	38
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

S T SERVICES (Continued) **U001603716**

Year:	1995
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	35
Reactive Organic Gases Tons/Yr:	35
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1996
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	44
Reactive Organic Gases Tons/Yr:	44
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	44
Reactive Organic Gases Tons/Yr:	44
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171

S T SERVICES (Continued) **U001603716**

Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	44
Reactive Organic Gases Tons/Yr:	44
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	44
Reactive Organic Gases Tons/Yr:	44
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	46
Reactive Organic Gases Tons/Yr:	46
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	B
Total Organic Hydrocarbon Gases Tons/Yr:	99
Reactive Organic Gases Tons/Yr:	99
Carbon Monoxide Emissions Tons/Yr:	0

S T SERVICES (Continued) **U001603716**

NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	19
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	29.42137542
Reactive Organic Gases Tons/Yr:	20.64799469
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2005
County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0279713656562397781
Reactive Organic Gases Tons/Yr:	.019540796047449109
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2007

S T SERVICES (Continued) **U001603716**

County Code:	39
Air Basin:	SJV
Facility ID:	829
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10.14144646065241584
Reactive Organic Gases Tons/Yr:	7.124581170166015
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

A24 **2941 NAVY DRIVE** **ERNS** **2002600126**
NE **2941 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 24 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A25 **TEXACO USA A DIVISION OF TEXACO INC** **RCRA-SQG** **1000144867**
NE **2941 NAVY DRIVE** **FINDS** **CAD000626051**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
218 ft. **Site 25 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	TEXACO USA A DIVISION OF TEXACO INC
Facility address:	2941 NAVY DRIVE STOCKTON, CA 95206
EPA ID:	CAD000626051
Mailing address:	3350 WILSHIRE BLVD PO BOX 3756 LOS ANGELES, CA 90051
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	TEXACO USA
Owner/operator address:	3350 WILSHIRE BLVD PO BOX 3756

TEXACO USA A DIVISION OF TEXACO INC (Continued) **1000144867**

LOS ANGELES, CA 90051
Owner/operator country: Not reported
Owner/operator telephone: (213) 385-0515
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: TEXACO USA
Owner/operator address: 3350 WILSHIRE BLVD PO BOX 3756
CITY NOT REPORTED, CA 99999
Owner/operator country: Not reported
Owner/operator telephone: (213) 385-0515
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 08/18/1980
Facility name: TEXACO USA A DIVISION OF TEXACO INC
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110009527422

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A26 NE < 1/8 0.041 mi. 218 ft. — **2941 NAVY DRIVE**, **2941 NAVY DRIVE**, **STOCKTON, CA 95206** — **ERNS** — **2006806055** / **N/A**

Site 26 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A27 NE < 1/8 0.041 mi. 218 ft. — **2941 NAVY DR**, **2941 NAVY DR**, **STOCKTON, CA 95206** — **ERNS** — **93306787** / **N/A**

Site 27 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A28 NE < 1/8 0.041 mi. 218 ft. — **2941 NAVY DRIVE**, **2941 NAVY DRIVE**, **STOCKTON, CA 95206** — **ERNS** — **2006804486** / **N/A**

Site 28 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A29 NE < 1/8 0.041 mi. 219 ft. — **STOCKTON TERMINAL 2947 NAVY DRIVE**, **STOCKTON TERMINAL 2947 NAVY DRIVE**, **STOCKTON, CA** — **ERNS** — **91237923** / **N/A**

Site 29 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A30 NE < 1/8 0.041 mi. 219 ft. — **STOCKTON TERMINAL 2947 NAVY DR.**, **STOCKTON TERMINAL 2947 NAVY DR.**, **STOCKTON, CA 95206** — **ERNS** — **91240417** / **N/A**

Site 30 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A31 NE < 1/8 0.041 mi. 219 ft. — **KINDER MORGAN**, **2947 NAVY**, **STOCKTON, CA 95206** — **AST** — **A100338804** / **N/A**

Site 31 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

AST:

Owner:	KINDER MORGAN
Total Gallons:	21,000
Certified Unified Program Agencies:	San Joaquin

A32 NE < 1/8 0.041 mi. 219 ft. | **SANTA FE PACIFIC PIPELINE LP**
2947 NAVY DRIVE
STOCKTON, CA 95206 | **RCRA-LQG FINDS** | **1000409218 CAT080011240**

Site 32 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

RCRA-LQG:

Date form received by agency:	06/02/2010
Facility name:	SFPP, L.P. STOCKTON TERMINAL
Facility address:	2947 NAVY DRIVE STOCKTON, CA 95206
EPA ID:	CAT080011240
Mailing address:	TOWN AND COUNTRY ROAD ORANGE, CA 92868
Contact:	KARINA G HANKINS
Contact address:	1100 TOWN AND COUNTRY ROAD ORANGE, CA 92868
Contact country:	US
Contact telephone:	(714) 560-4887
Contact email:	KARINA_HANKINS@KINDERMORGAN.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	SFPP, L.P.
Owner/operator address:	1100 TOWN AND COUNTRY ROAD ORANGE, CA 92868
Owner/operator country:	US
Owner/operator telephone:	(714) 560-4887
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	02/08/1990
Owner/Op end date:	Not reported
Owner/operator name:	SFPP, L.P.
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	02/08/1990
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999

SANTA FE PACIFIC PIPELINE LP (Continued) **1000409218**

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/27/2004
Facility name: SFPP, L.P. STOCKTON TERMINAL
Classification: Small Quantity Generator

Date form received by agency: 02/27/2004
Facility name: SFPP, L.P. STOCKTON TERMINAL
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: SFPP, L.P. STOCKTON TERMINAL
Site name: SFPP, L.P./ STOCKTON
Classification: Large Quantity Generator

Date form received by agency: 01/26/1998
Facility name: SFPP, L.P. STOCKTON TERMINAL
Site name: SFPP LP STOCKTON TERMINAL
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: SFPP, L.P. STOCKTON TERMINAL
Site name: SFPP LP STOCKTON TERMINAL
Classification: Small Quantity Generator

Date form received by agency: 02/28/1996
Facility name: SFPP, L.P. STOCKTON TERMINAL
Site name: SFPP, L.P.
Classification: Large Quantity Generator

Date form received by agency: 05/17/1990
Facility name: SFPP, L.P. STOCKTON TERMINAL
Site name: SANTA FE PACIFIC PIPELINE STOCKTON TERM.

SANTA FE PACIFIC PIPELINE LP (Continued) **1000409218**

Classification: Large Quantity Generator

Date form received by agency: 07/27/1989
Facility name: SFPP, L.P. STOCKTON TERMINAL
Site name: SFPP LP STOCKTON TERMINAL
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Biennial Reports:

Last Biennial Reporting Year: 2011

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 375

Waste code: D018
Waste name: BENZENE
Amount (Lbs): 33736.1

Violation Status: No violations found

FINDS:

Registry ID: 110000887871

Environmental Interest/Information System
The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of

SANTA FE PACIFIC PIPELINE LP (Continued) **1000409218**

events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A33 **2947 NAVY DRIVE** **ERNS** **2006788816**
NE **2947 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
219 ft. **Site 33 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A34 **TOSCO CORPORATION, STOCKTON TERMINAL** **RCRA-NonGen** **1000175638**
NE **2947 NAVY DRIVE BUILDING** **FINDS** **CAD000628867**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
219 ft. **Site 34 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

RCRA-NonGen:

Date form received by agency:	08/18/1980
Facility name:	TOSCO CORPORATION, STOCKTON TERMINAL
Facility address:	2947 NAVY DRIVE BUILDING STOCKTON, CA 95206
EPA ID:	CAD000628867
Mailing address:	10100 SANTA MONICA BOULEVARD LOS ANGELES, CA 90067
Contact:	ENVIRONMENTAL MANAGER
Contact address:	2947 NAVY DRIVE BUILDING STOCKTON, CA 95206
Contact country:	US
Contact telephone:	(213) 552-7000
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	STANDARD TRANSMISSION
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private

TOSCO CORPORATION, STOCKTON TERMINAL (Continued) **1000175638**

Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110009527592

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A35 **2947 NAVY DRIVE** **ERNS** **2005626257**
NE **2947 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
219 ft. **Site 35 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A36 **2947 NAVY DRIVE** **ERNS** **2006788003**
NE **2947 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA**
0.041 mi.
219 ft. **Site 36 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A37 NE < 1/8 0.041 mi. 219 ft. — **2947 NAVY DRIVE** / **2947 NAVY DRIVE** / **STOCKTON, CA 95206** — **ERNS** — **2008884655** / **N/A**

Site 37 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A38 NE < 1/8 0.041 mi. 219 ft. — **SFPP LP (STOCKTON TERMINAL)** / **2947 NAVY DR** / **STOCKTON, CA 95206** — **HAZNET** — **S103650200** / **N/A**

Site 38 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

HAZNET:

Year:	2009
Gepaid:	CAT080011240
Contact:	ROBERT GRANADO, DIRECTOR-EHS
Telephone:	7145604873
Mailing Name:	Not reported
Mailing Address:	1100 TOWN AND COUNTRY RD
Mailing City,St,Zip:	ORANGE, CA 928684600
Gen County:	San Joaquin
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	16.68
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAT080011240
Contact:	ROBERT GRANADO, DIRECTOR-EHS
Telephone:	7145604873
Mailing Name:	Not reported
Mailing Address:	1100 TOWN AND COUNTRY RD
Mailing City,St,Zip:	ORANGE, CA 928684600
Gen County:	San Joaquin
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.1875
Facility County:	San Joaquin

Year:	2008
Gepaid:	CAT080011240
Contact:	ROBERT GRANADO, DIRECTOR-EHS
Telephone:	7145604873
Mailing Name:	ENVIRONMENTAL AFFAIRS DEPT
Mailing Address:	1100 TOWN AND COUNTRY RD
Mailing City,St,Zip:	ORANGE, CA 928684600
Gen County:	San Joaquin
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION,

SFPP LP (STOCKTON TERMINAL) (Continued) **S103650200**

ORGANICS RECOVERY ECT
Tons: 9.3466
Facility County: San Joaquin

Year: 2008
Gepaid: CAT080011240
Contact: ROBERT GRANADO, DIRECTOR-EHS
Telephone: 7145604873
Mailing Name: ENVIRONMENTAL AFFAIRS DEPT
Mailing Address: 1100 TOWN AND COUNTRY RD
Mailing City,St,Zip: ORANGE, CA 928684600
Gen County: San Joaquin
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Unspecified organic liquid mixture
Disposal Method: FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons: 0.085
Facility County: San Joaquin

Year: 2006
Gepaid: CAT080011240
Contact: ROBERT G GRANADO
Telephone: 7145604873
Mailing Name: Not reported
Mailing Address: 1100 TOWN AND COUNTRY RD
Mailing City,St,Zip: ORANGE, CA 928684600
Gen County: San Joaquin
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: H14
Tons: 0.27
Facility County: San Joaquin

Click this hyperlink while viewing on your computer to access
26 additional CA_HAZNET: record(s) in the EDR Site Report.

A39 **2947 NAVY DRIVE** **ERNS** **2008862270**
NE **2947 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
219 ft. **Site 39 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access
additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A40 **2947 NAVY DRIVE** **ERNS** **2008883620**
NE **2947 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
219 ft. **Site 40 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access
additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A41 NE < 1/8 0.041 mi. 219 ft. — **STOCKTON TERMINAL 2947 NAVY DRIVE** / **STOCKTON TERMINAL 2947 NAVY DRIVE** / **STOCKTON, CA 95206** — **ERNS** — **91467315** / **N/A**

Site 41 of 67 in cluster A

Relative: Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual: 6 ft.

A42 NE < 1/8 0.041 mi. 219 ft. — **KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL** / **2947 NAVY DR** / **STOCKTON, CA** — **CA FID UST**, **SLIC**, **SWEEPS UST**, **CHMIRS** — **S101630476** / **N/A**

Site 42 of 67 in cluster A

Relative: Lower

Actual: 6 ft.

CA FID UST:

Facility ID:	39001808
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	610 S MAIN ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95206
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SLIC:

Region:	5
Facility Status:	Feasibility Study
Unit:	Facility is a Spill or site
Pollutant:	TPH - g, d, BTEX, MTBE
Lead Agency:	DLL
Date Filed:	/ /
Report Date:	/ /
Date Added:	Not reported
Date Closed:	Not reported

SWEEPS UST:

Status:	Not reported
Comp Number:	2016
Number:	Not reported
Board Of Equalization:	44-024941
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-002016-000001
Actv Date:	Not reported
Capacity:	1500
Tank Use:	M.V. FUEL

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	1

CHMIRS:

OES Incident Number:	06-5002
OES notification:	8/22/2006 06:14:26 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	8/22/2006 12:00:00 AM
Admin Agency:	Not reported
Amount:	Not reported

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Due to an overfill of a funnel during a maintenance operation a release occurred.
OES Incident Number:	06-4363
OES notification:	7/24/2006 03:02:26 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan Energy
Incident Date:	7/24/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	There is an odor of gasoline and a liquid coming from a containment unit. The source and circumstances are under investigation at this time.
OES Incident Number:	'08-6695
OES notification:	9/12/2008 7:06:05 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Pipe Line
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1901
Year:	2008
Agency:	Kinder Morgan
Incident Date:	9/12/2008
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Diesel
Quantity Released:	1
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Equipment failure caused this release
OES Incident Number:	06-1115
OES notification:	2/22/2006 07:40:00 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	2/22/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Contained:	No
Site Type:	Other
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Substance was released due to a leaky valve at the flange. Substance released covered an area 3 inches X 3 Inches.
OES Incident Number:	'08-0633
OES notification:	1/22/2008 8:10:11 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Refinery
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Cu.Ft.
Other:	Not reported
Date/Time:	2007
Year:	2008
Agency:	Kinder Morgan
Incident Date:	1/22/2008
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Unknown
Quantity Released:	6
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	On the gravel at the Kinder Morgan property are several puddles, estimating a total combined measurement of 6ft x 6ft area. The puddles have a smell similar to petroleum coming off them. Cause is from an unknown source and unknown substance at this time, but it is possibly due to the rainfall which may be washing motoroil off the gravel. All is contained at the Kinder Morgan facility.
OES Incident Number:	05-3923
OES notification:	7/1/200507:47:11 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Kinder Morgan
Incident Date:	7/1/200512:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Substance was released from a manifold due to unknown causes. Substance sprayed out. Substance covered an area 1 Ft X 1 Ft.
OES Incident Number:	05-5695
OES notification:	10/1/200507:41:58 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Agency:	Kinder Morgan
Incident Date:	10/1/200512:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Per caller, a pressure switch caused the release. It was only drops worth of material released.
OES Incident Number:	06-2561
OES notification:	4/28/2006 08:57:06 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	4/28/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Per caller, this is a stain 2inches by four inches. Cause of the release in unknown.
OES Incident Number:	05-2341
OES notification:	4/19/200506:51:40 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Kinder Morgan
Incident Date:	4/19/200512:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	2
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0

KINDER MORGAN ENERGY PARTNERS - STOCKTON TERMINAL (Continued) **S101630476**

Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Per caller, a drip from a pressure control valve sensor is causing the release.

A43 **2947 NAVY DRIVE** **ERNS** **2006819445**
NE **2947 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
219 ft. **Site 43 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A44 **2947 NAVY DRIVE** **ERNS** **2008860356**
NE **2947 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA**
0.041 mi.
219 ft. **Site 44 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A45 **2947 NAVY DRIVE** **ERNS** **2005616250**
NE **2947 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA**
0.041 mi.
219 ft. **Site 45 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A46 **SANTA FE PACIFIC PIPELINE LP** **ENVIROSTOR** **S110494262**
NE **2947 NAVY DRIVE, STOCKTON TERMINAL** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
219 ft. **Site 46 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

ENVIROSTOR:

Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Facility ID:	71003522
Site Code:	Not reported
Assembly:	17

SANTA FE PACIFIC PIPELINE LP (Continued) **S110494262**

Senate:	05
Special Program:	Not reported
Status:	Refer: Other Agency
Status Date:	Not reported
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.9419398
Longitude:	-121.33429409999999
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAT080011240
Alias Type:	EPA Identification Number
Alias Name:	71003522
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

A47 **STOCKTON TERMINAL** **HIST UST** **U001603740**
NE **2947 NAVY DR** **SWEEPS UST** **N/A**
< 1/8 **STOCKTON, CA 95206** **CHMIRS**
0.041 mi.
219 ft. **Site 47 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

HIST UST:

Region:	STATE
Facility ID:	00000040415
Facility Type:	Other
Other Type:	COMMON CARRIER PIPEL
Total Tanks:	0001
Contact Name:	SAM WILDBLOOD
Telephone:	2094657369
Owner Name:	SOUTHERN PACIFIC PIPE LINES, I
Owner Address:	610 SOUTH MAIN STREET
Owner City,St,Zip:	LOS ANGELES, CA 90014
Tank Num:	001
Container Num:	SN-D-1
Year Installed:	1961
Tank Capacity:	00001470

STOCKTON TERMINAL (Continued) **U001603740**

Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 3/16 inches
Leak Detection: Visual

SWEEPS UST:
Status: Not reported
Comp Number: 1959
Number: Not reported
Board Of Equalization: 44-024941
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001959-000001
Actv Date: Not reported
Capacity: 1470
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 1

CHMIRS:
OES Incident Number: 01-1918
OES notification: 3/31/200111:49:15 PM
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/ICC Number: Not reported

STOCKTON TERMINAL (Continued) **U001603740**

Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2001
Agency:	Kinder Morgan Energy
Incident Date:	3/31/200112:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	1
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0.000000
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Main line block in bleed valve and product leaked from stem.

A48 **2947 NAVY DRIVE** **ERNS** **2006801616**
NE **2947 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
219 ft. **Site 48 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
6 ft.

A49 **CHMIRS** **S109038158**
NE **2947 NAVY DR.** **N/A**
< 1/8 **STOCKTON, CA**
0.041 mi.
219 ft. **Site 49 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

CHMIRS:

OES Incident Number:	06-0960
OES notification:	2/14/2006 07:48:43 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan Stockton
Incident Date:	2/14/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported

(Continued) **S109038158**

Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	Unk. stain
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	RP believes as the rains have stopped puddles have left 3 stains, none larger than 6 inches behind. RP advises the stains are from rain fall mixing with residual particles on the surface, and not from the pipeline.
OES Incident Number:	06-2877
OES notification:	5/13/2006 07:44:42 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported

(Continued) **S109038158**

CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	5/13/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Oil Field
E Date:	Not reported
Substance:	Hydraulic Oil
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	The oil is leaking from a valve. There is a small stain on floor.

A50 **KMEP - STOCKTON TERMINAL** **SLIC** **S106855424**
NE **2947 NAVY DRIVE** **CHMIRS** **N/A**
< 1/8 **STOCKTON, CA** **EMI**
0.041 mi.
219 ft. **Site 50 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Verification Monitoring**
Status Date:	2001-03-30 00:00:00
Global Id:	SL373513623
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.9384

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

Longitude:	-121.329
Case Type:	Cleanup Program Site
Case Worker:	KAS
Local Agency:	Not reported
RB Case Number:	SL373513623
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern:	Diesel, Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

CHMIRS:

OES Incident Number:	'08-1288
OES notification:	2/13/2008 8:31:20 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Pipe Line
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

Measure:	Oz.
Other:	Not reported
Date/Time:	0829
Year:	2008
Agency:	Kinder Morgan
Incident Date:	2/13/2008
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Hydraulic Oil
Quantity Released:	2
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	RP states that a valve had a leak of residual hydraulic oil onto some gravel. The area is approximately 3" X 3". A drip pan was placed under drip.
OES Incident Number:	06-5857
OES notification:	10/2/2006 09:51:22 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	10/2/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Stain on the soil approximately 12" by 18". Operator error caused release.
OES Incident Number:	06-3703
OES notification:	6/22/2006 07:33:57 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	6/22/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	4-ft by 3-ft stain found under the equipment at the pipeline terminal. Still under investigation. Equipment has been shut down during the investigation.
OES Incident Number:	05-3800
OES notification:	6/26/200501:17:38 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Kinder Morgan
Incident Date:	6/26/200512:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	Potential Threatened Release
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	This is a potential threatened release due to an earthquake that occurred in the Lake Tahoe Area. No Release occurred at this time . System is still shut down while pressure test is being ran. Caller stated he will call in update once line is clearedd. NOTE: Caller initially called in at 1218 Hrs. Report was not taken due to Quake notifications.
OES Incident Number:	06-7053
OES notification:	11/29/2006 11:15:00 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	no
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	11/29/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Walk around inspection revealed two pipes leaking a very small amount of diesel. Leaking onto a dirt and gravel mix.

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

OES Incident Number:	05-4964
OES notification:	8/24/200507:26:51 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Kinder Morgan
Incident Date:	8/24/200512:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	No
Site Type:	Pipe Line
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	Not reported

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Release caused by a drip in a gasket, very small area on the ground, 6 by 3 approx. Continual drip.

EMI:

Year:	2003
County Code:	39
Air Basin:	SJV
Facility ID:	1000
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	39
Air Basin:	SJV
Facility ID:	1000
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.233717252
Reactive Organic Gases Tons/Yr:	1.094479682
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2005
County Code:	39
Air Basin:	SJV

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

Facility ID:	1000
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.233717251815771531
Reactive Organic Gases Tons/Yr:	1.0944796819610596
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2006
County Code:	39
Air Basin:	SJV
Facility ID:	1000
Air District Name:	SJU
SIC Code:	4226
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.6571074156983974700
Reactive Organic Gases Tons/Yr:	.58418
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	1000
Air District Name:	SJU
SIC Code:	4226
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0071696394345086601
Reactive Organic Gases Tons/Yr:	.00500871010894775
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	1000
Air District Name:	SJU
SIC Code:	4226
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

KMEP - STOCKTON TERMINAL (Continued) **S106855424**

Total Organic Hydrocarbon Gases Tons/Yr:	.0344982149436479661
Reactive Organic Gases Tons/Yr:	.03081842334747314
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

A51 **SFPP LP (STOCKTON TERMINAL)** **UST** **U003786599**
NE **2947 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.041 mi.
219 ft. **Site 51 of 67 in cluster A**

Relative:
Lower

Actual:
6 ft.

UST:

Facility ID:	17435
Latitude:	37.9423
Longitude:	-121.33468

Facility ID:	17443
Latitude:	37.9423
Longitude:	-121.33468

UST SAN JOAQUIN:

Region:	SJ
Facility Id:	FA0005864
Mail Address:	2947 NAVY DR
Mail Care of:	STOCKTON TERMINAL
Mail City,St,Zip:	STOCKTON, CA 95206
Tank Rec ID:	TA0503490
Tank Number:	1
Tank Status:	ACTIVE, EXEMPT
Tank Capacity:	1470
Product Type:	1A
Product Type Desc:	REGULAR UNLEADED
Program Element:	2322

Tank Rec ID:	TA0503323
Tank Number:	1
Tank Status:	ACTIVE, EXEMPT
Tank Capacity:	1500
Product Type:	1A
Product Type Desc:	REGULAR UNLEADED
Program Element:	2322

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
A52 NE < 1/8 0.041 mi. 219 ft.	**2947 NAVY DRIVE 2947 NAVY DRIVE STOCKTON, CA 95206** **Site 52 of 67 in cluster A**	**ERNS**	**2006808668 N/A**
Relative: Lower	Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.		
Actual: 6 ft.			
A53 NE < 1/8 0.041 mi. 219 ft.	**2947 NAVY DRIVE 2947 NAVY DRIVE STOCKTON, CA 95206** **Site 53 of 67 in cluster A**	**ERNS**	**2006805266 N/A**
Relative: Lower	Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.		
Actual: 6 ft.			
A54 NE < 1/8 0.041 mi. 219 ft.	**2947 NAVY DRIVE 2947 NAVY DRIVE STOCKTON, CA 95206** **Site 54 of 67 in cluster A**	**ERNS**	**2005622560 N/A**
Relative: Lower	Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.		
Actual: 6 ft.			
A55 NE < 1/8 0.041 mi. 219 ft.	**2947 NAVY DRIVE 2947 NAVY DRIVE STOCKTON, CA 95206** **Site 55 of 67 in cluster A**	**ERNS**	**2006797066 N/A**
Relative: Lower	Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.		
Actual: 6 ft.			
A56 NE < 1/8 0.041 mi. 219 ft.	**2947 NAVY DRIVE 2947 NAVY DRIVE STOCKTON, CA 95206** **Site 56 of 67 in cluster A**	**ERNS**	**2006795541 N/A**
Relative: Lower	Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.		
Actual: 6 ft.			
A57 NE < 1/8 0.041 mi. 219 ft.	**2947 NAVY DRIVE 2947 NAVY DRIVE STOCKTON, CA 95206** **Site 57 of 67 in cluster A**	**ERNS**	**2006813399 N/A**
Relative: Lower	Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.		
Actual: 6 ft.			

A58
NE
< 1/8
0.047 mi.
246 ft.

PORT OF STOCKTON
3025 NAVY DR
STOCKTON, CA 95203

Site 58 of 67 in cluster A

HAZNET **S104162964**
N/A

Relative:
Lower

Actual:
7 ft.

HAZNET:

Year:	1994
Gepaid:	CAC000887272
Contact:	PORT OF STOCKTON
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	2201 W WASHINGTON ST
Mailing City,St,Zip:	STOCKTON, CA 952030000
Gen County:	San Joaquin
TSD EPA ID:	CAD083166728
TSD County:	Stanislaus
Waste Category:	Unspecified oil-containing waste
Disposal Method:	R01
Tons:	1.4261
Facility County:	San Joaquin

A59
NE
< 1/8
0.052 mi.
277 ft.

3003 NAVY DRIVE
3003 NAVY DRIVE
STOCKTON, CA 95206

Site 59 of 67 in cluster A

ERNS **2004739043**
N/A

Relative:
Lower

Actual:
7 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A60
NE
< 1/8
0.052 mi.
277 ft.

PG&E - LEARNER SUBSTATION
3003 NAVY DR
STOCKTON, CA 95206

Site 60 of 67 in cluster A

CA FID UST **S101592694**
SLIC **N/A**
SWEEPS UST
HAZNET

Relative:
Lower

Actual:
7 ft.

CA FID UST:

Facility ID:	39000184
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2094668800
Mail To:	Not reported
Mailing Address:	3003 NAVY DR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95206
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

Facility ID:	39000184
Regulated By:	UTNKI
Regulated ID:	Not reported

PG&E - LEARNER SUBSTATION (Continued) **S101592694**

Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	525 W THIRD ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95202
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SLIC:

Region:	STATE
Facility Status:	**Open - Verification Monitoring**
Status Date:	2002-05-15 00:00:00
Global Id:	SL375453650
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.946812
Longitude:	-121.337456
Case Type:	Cleanup Program Site
Case Worker:	KAS
Local Agency:	Not reported
RB Case Number:	SL375453650
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern:	* Petroleum - Automotive gasolines, * Petroleum - Diesel fuels
Site History:	In the fall of 2004, the STTC began operation of two ozone sparge (OS) systems to clean up groundwater pollution migrating downgradient from the Site. The west system is downgradient of Tesoro. Tesoro is presently conducting two remedial studies. Tesoro will be conducting a hydrogen peroxide solution pilot study along the southwest property boundary during the 2nd quarter 2010. The results of a helium tracer, oxygen-injection pilot study at the northeast property boundary Tesoro concluded that they prefer to use a passive oxygen source.

Click here to access the California GeoTracker records for this facility:

SLIC:

Region:	5
Facility Status:	Remediation Underway
Unit:	Facility is a Spill or site
Pollutant:	TPHd, TPHg, BTEX, MTBE
Lead Agency:	DLL
Date Filed:	/ /
Report Date:	/ /
Date Added:	Not reported
Date Closed:	Not reported

SWEEPS UST:

Status:	Not reported
Comp Number:	1839

PG&E - LEARNER SUBSTATION (Continued) **S101592694**

Number:	Not reported
Board Of Equalization:	44-000030
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001839-000001
Actv Date:	Not reported
Capacity:	15000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	ETHYC ALCOHO
Number Of Tanks:	1

HAZNET:

Year:	2009
Gepaid:	CAC002645856
Contact:	DOB GILBERT
Telephone:	9254156383
Mailing Name:	Not reported
Mailing Address:	3401 CROW CANYON RD
Mailing City,St,Zip:	SAN RAMON, CA 94583
Gen County:	San Joaquin
TSD EPA ID:	CAD980887418
TSD County:	Alameda
Waste Category:	Waste oil and mixed oil
Disposal Method:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	10.45
Facility County:	San Joaquin

A61 **TESORO PETROLEUM CORP** **RCRA-SQG** **1000880996**
NE **3003 NAVY DR** **FINDS** **CAT000618637**
< 1/8 **STOCKTON, CA 95206** **UST**
0.052 mi. **SWEEPS UST**
277 ft. **Site 61 of 67 in cluster A** **CHMIRS**
HAZNET
Relative: **EMI**
Lower **ENVIROSTOR**

Actual:
7 ft.

RCRA-SQG:

Date form received by agency:	03/22/1996
Facility name:	TESORO PETROLEUM CORP
Site name:	TESORO REFINING, MARKETING & SUPPLY CO.
Facility address:	3003 NAVY DRIVE STOCKTON, CA 95206
EPA ID:	CAT000618637
Contact:	ROBERT DONOVAN
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	(503) 242-0244
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of

TESORO PETROLEUM CORP (Continued) **1000880996**

hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	TESORO PETROLEUM CORP
Owner/operator address:	3003 NAVY DR STOCKTON, CA 95206
Owner/operator country:	Not reported
Owner/operator telephone:	(210) 828-8484
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	06/22/1993
Facility name:	TESORO PETROLEUM CORP
Classification:	Small Quantity Generator
Violation Status:	No violations found

FINDS:

Registry ID: 110009555007

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and

TESORO PETROLEUM CORP (Continued) **1000880996**

their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US Facility Response Plan (FRP) contains plans for responding, to the maximum extent practical, to worst case discharges of oil.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

UST:

Facility ID:	17249
Latitude:	37.94277
Longitude:	-121.33518

UST SAN JOAQUIN:

Region:	SJ
Facility Id:	FA0003503
Mail Address:	PO BOX 690007
Mail Care of:	LICENSE & PERMITS
Mail City,St,Zip:	SAN ANTONIO, TX 782690007
Tank Rec ID:	TA0183901
Tank Number:	1
Tank Status:	CLOSED
Tank Capacity:	15000
Product Type:	1A
Product Type Desc:	REGULAR UNLEADED
Program Element:	2380
Tank Rec ID:	TA0183701
Tank Number:	1

TESORO PETROLEUM CORP (Continued) **1000880996**

Tank Status: CLOSED
Tank Capacity: 0
Product Type: 99
Product Type Desc: OTHER
Program Element: 2380

Tank Rec ID: TA0183702
Tank Number: 2
Tank Status: CLOSED
Tank Capacity: 10000
Product Type: 1A
Product Type Desc: REGULAR UNLEADED
Program Element: 2380

Tank Rec ID: TA0183703
Tank Number: 3
Tank Status: ACTIVE, EXEMPT
Tank Capacity: 4000
Product Type: 1A
Product Type Desc: REGULAR UNLEADED
Program Element: 2322

Tank Rec ID: TA0183704
Tank Number: 4
Tank Status: ACTIVE, EXEMPT
Tank Capacity: 550
Product Type: 1A
Product Type Desc: REGULAR UNLEADED
Program Element: 2322

SWEEPS UST:
Status: A
Comp Number: 1837
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-14-92
Act Date: 09-14-92
Created Date: 08-24-90
Tank Status: A
Owner Tank Id: 5728003
Swrcb Tank Id: 39-000-001837-000003
Actv Date: 09-14-92
Capacity: 4000
Tank Use: M.V. FUEL
Stg: P
Content: MIXED FUELS
Number Of Tanks: 1

Status: Not reported
Comp Number: 1837
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported

TESORO PETROLEUM CORP (Continued) **1000880996**

Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001837-000001
Actv Date:	Not reported
Capacity:	100
Tank Use:	UNKNOWN
Stg:	PRODUCT
Content:	Not reported
Number Of Tanks:	3

Status:	Not reported
Comp Number:	1837
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001837-000002
Actv Date:	Not reported
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	MIXED FUELS
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1837
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001837-000004
Actv Date:	Not reported
Capacity:	550
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REGULAR UNLE
Number Of Tanks:	Not reported

CHMIRS:

OES Incident Number:	99-1960
OES notification:	5/6/199909:54:05 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported

TESORO PETROLEUM CORP (Continued) **1000880996**

Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1999
Agency:	Tesoro Petroleum
Incident Date:	5/6/199912:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	gasoline
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	7
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0

TESORO PETROLEUM CORP (Continued) **1000880996**

Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Caused by a separator valve malfunction. This occurred at a gasoline storage facility.

HAZNET:

Year:	2002
Gepaid:	CAT000618637
Contact:	DAVID TAYLOR-TERMINAL SPVR
Telephone:	2094668800
Mailing Name:	Not reported
Mailing Address:	3003 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061150
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	Santa Clara
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	D99
Tons:	36.84
Facility County:	Not reported

Year:	1997
Gepaid:	CAT000618637
Contact:	TESORO WEST COAST COMPANY
Telephone:	2066248889
Mailing Name:	Not reported
Mailing Address:	3003 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061150
Gen County:	San Joaquin
TSD EPA ID:	CAD000088252
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	H01
Tons:	.2000
Facility County:	San Joaquin

Year:	1996
Gepaid:	CAT000618637
Contact:	TESORO WEST COAST COMPANY
Telephone:	2066248889
Mailing Name:	Not reported
Mailing Address:	3003 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061150
Gen County:	San Joaquin
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	R01
Tons:	14.5950
Facility County:	San Joaquin

Year:	1995
Gepaid:	CAT000618637
Contact:	TESORO WEST COAST COMPANY

TESORO PETROLEUM CORP (Continued) **1000880996**

Telephone:	2066248889
Mailing Name:	Not reported
Mailing Address:	3003 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061150
Gen County:	San Joaquin
TSD EPA ID:	CAD000088252
TSD County:	Los Angeles
Waste Category:	Tank bottom waste
Disposal Method:	H01
Tons:	6.8805
Facility County:	San Joaquin

Year:	1995
Gepaid:	CAT000618637
Contact:	TESORO WEST COAST COMPANY
Telephone:	2066248889
Mailing Name:	Not reported
Mailing Address:	3003 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061150
Gen County:	San Joaquin
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	R01
Tons:	13.1355
Facility County:	San Joaquin

Click this hyperlink while viewing on your computer to access
7 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	1996
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	23
Reactive Organic Gases Tons/Yr:	23
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

TESORO PETROLEUM CORP (Continued) **1000880996**

Total Organic Hydrocarbon Gases Tons/Yr:	23
Reactive Organic Gases Tons/Yr:	23
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	2911
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	21
Reactive Organic Gases Tons/Yr:	21
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	2911
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	2911
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0

TESORO PETROLEUM CORP (Continued) **1000880996**

Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	2911
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	2911
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	B
Total Organic Hydrocarbon Gases Tons/Yr:	32
Reactive Organic Gases Tons/Yr:	28
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9.350810664
Reactive Organic Gases Tons/Yr:	7.398524106
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2005
County Code:	39
Air Basin:	SJV
Facility ID:	845

TESORO PETROLEUM CORP (Continued) **1000880996**

Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9.873208209682394826
Reactive Organic Gases Tons/Yr:	7.7634818871147461
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2006
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10.28974866150814298
Reactive Organic Gases Tons/Yr:	8.2539572506919433
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12.62608166367815006
Reactive Organic Gases Tons/Yr:	9.065628437367694161
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

ENVIROSTOR:

Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress

TESORO PETROLEUM CORP (Continued) **1000880996**

Facility ID:	71003499
Site Code:	Not reported
Assembly:	17
Senate:	05
Special Program:	Not reported
Status:	Refer: Other Agency
Status Date:	Not reported
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.942757999999998
Longitude:	-121.33518359999999
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAT000618637
Alias Type:	EPA Identification Number
Alias Name:	71003499
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

A62 **AMINOIL STOCKTON TERMINAL** **HIST UST** **1000318101**
NE **3003 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95201**
0.052 mi.
277 ft. **Site 62 of 67 in cluster A**

Relative:
Lower

Actual:
7 ft.

HIST UST:

Region:	STATE
Facility ID:	00000057218
Facility Type:	Not reported
Other Type:	Not reported
Total Tanks:	0004
Contact Name:	DAVE TAYLOR
Telephone:	0000000000
Owner Name:	AMINOIL INC.
Owner Address:	2130 MAIN STREET
Owner City,St,Zip:	HUNTINGTON BEACH, CA 92648
Tank Num:	001

AMINOIL STOCKTON TERMINAL (Continued) **1000318101**

Container Num: 1
Year Installed: 1968
Tank Capacity: 00015000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: None

Tank Num: 002
Container Num: 2
Year Installed: 1975
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: 1947
Tank Capacity: 00001947
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 4
Year Installed: 1975
Tank Capacity: 00000550
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: None

A63 **TESORO REFINING AND MARKETING COMPANY** **HAZNET** **S108756289**
NE **3003 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.052 mi.
277 ft. **Site 63 of 67 in cluster A**

Relative:
Lower

Actual:
7 ft.

HAZNET:
Year: 2009
Gepaid: CAT000618637
Contact: JOHN WALKER - TERMINAL MANAGER
Telephone: 2094668800
Mailing Name: Not reported
Mailing Address: 3003 NAVY DR
Mailing City,St,Zip: STOCKTON, CA 952061150
Gen County: San Joaquin
TSD EPA ID: ARD069748192
TSD County: 99
Waste Category: Other organic solids
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.0075
Facility County: San Joaquin

TESORO REFINING AND MARKETING COMPANY (Continued) **S108756289**

Year:	2009
Gepaid:	CAT000618637
Contact:	JOHN WALKER - TERMINAL MANAGER
Telephone:	2094668800
Mailing Name:	Not reported
Mailing Address:	3003 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061150
Gen County:	San Joaquin
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.025
Facility County:	San Joaquin

Year:	2008
Gepaid:	CAT000618637
Contact:	JOHN WALKER - TERMINAL MANAGER
Telephone:	2094668800
Mailing Name:	Not reported
Mailing Address:	3003 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061150
Gen County:	San Joaquin
TSD EPA ID:	UTD981552177
TSD County:	99
Waste Category:	Other organic solids
Disposal Method:	INCINERATION--THERMAL DESTRUCTION OTHER THAN USE AS A FUEL
Tons:	3.5375
Facility County:	San Joaquin

Year:	2008
Gepaid:	CAT000618637
Contact:	JOHN WALKER - TERMINAL MANAGER
Telephone:	2094668800
Mailing Name:	Not reported
Mailing Address:	3003 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061150
Gen County:	San Joaquin
TSD EPA ID:	NED981723513
TSD County:	99
Waste Category:	Other organic solids
Disposal Method:	INCINERATION--THERMAL DESTRUCTION OTHER THAN USE AS A FUEL
Tons:	0.75
Facility County:	San Joaquin

Year:	2006
Gepaid:	CAT000618637
Contact:	DAN GABEL - TERMINAL SUPVR
Telephone:	2094668800
Mailing Name:	Not reported
Mailing Address:	3003 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061150
Gen County:	San Joaquin
TSD EPA ID:	CAD980884183
TSD County:	Sacramento
Waste Category:	Other organic solids

TESORO REFINING AND MARKETING COMPANY (Continued) **S108756289**

Disposal Method: H01
Tons: 0.07
Facility County: San Joaquin

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

A64 **TESORO WEST COAST COMPANY** **AST** **A100337338**
NE **3003 NAVY** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.052 mi.
277 ft. **Site 64 of 67 in cluster A**

Relative:
Lower

Actual:
7 ft.

AST:
Owner: TESORO REFINING, MKTG & SUPPLY
Total Gallons: 2,810,426
Certified Unified Program Agencies: San Joaquin

A65 **3003 NAVY DRIVE** **ERNS** **99620927**
NE **3003 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.052 mi.
277 ft. **Site 65 of 67 in cluster A**

Relative:
Lower

Actual:
7 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A66 **TOSORO REFIN,MRKTG,&SUPPLY** **EMI** **S106841262**
NE **3003 W NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.052 mi.
277 ft. **Site 66 of 67 in cluster A**

Relative:
Lower

Actual:
7 ft.

EMI:

Year:	1987
County Code:	39
Air Basin:	SJV
Facility ID:	71
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	33
Reactive Organic Gases Tons/Yr:	33
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	39
Air Basin:	SJV
Facility ID:	71

TOSORO REFIN,MRKTG,&SUPPLY (Continued) **S106841262**

Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	22
Reactive Organic Gases Tons/Yr:	22
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	39
Air Basin:	SJV
Facility ID:	845
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	23
Reactive Organic Gases Tons/Yr:	23
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

A67 **3003 NAVY DRIVE** **ERNS** **2005623022**
NE **3003 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.052 mi.
277 ft. **Site 67 of 67 in cluster A**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
7 ft.

B68 **3028 NAVY DR** **ERNS** **2011970977**
NE **3028 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA**
0.055 mi.
289 ft. **Site 1 of 27 in cluster B**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
7 ft.

B69 NE < 1/8 0.055 mi. 289 ft. | **PACIFIC ETHANOL STOCKTON LLC**
3028 NAVY DR
STOCKTON, CA 95206

Site 2 of 27 in cluster B

NPDES **S109453235**
HAZNET **N/A**

Relative: Lower

Actual: 7 ft.

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I021746
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	8/18/2008 11:52:00 AM
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Pacific Ethanol Inc
Discharge Address:	400 Capital Mall Ste 2060
Discharge City:	Sacramento
Discharge State:	Ca
Discharge Zip:	95814

HAZNET:

Year:	2009
Gepaid:	CAL000337276
Contact:	LYNDON JONES
Telephone:	9168175995
Mailing Name:	Not reported
Mailing Address:	3028 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061165
Gen County:	San Joaquin
TSD EPA ID:	TXD077603371
TSD County:	99
Waste Category:	Waste oil and mixed oil
Disposal Method:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.225
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAL000337276
Contact:	LYNDON JONES
Telephone:	9168175995
Mailing Name:	Not reported
Mailing Address:	3028 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061165
Gen County:	San Joaquin
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Other organic solids
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.15
Facility County:	San Joaquin

PACIFIC ETHANOL STOCKTON LLC (Continued) **S109453235**

Year:	2008
Gepaid:	CAL000337276
Contact:	LYNDON JONES
Telephone:	9168175995
Mailing Name:	Not reported
Mailing Address:	3028 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061165
Gen County:	San Joaquin
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Other organic solids
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.3
Facility County:	San Joaquin

Year:	2008
Gepaid:	CAC002633715
Contact:	RON MCDANIEL
Telephone:	9169606001
Mailing Name:	Not reported
Mailing Address:	5815 PLEASANT GROVE RD
Mailing City,St,Zip:	PLEASANT GROVE, CA 956689701
Gen County:	San Joaquin
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Other organic solids
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.2
Facility County:	San Joaquin

Year:	2008
Gepaid:	CAL000337276
Contact:	LYNDON JONES
Telephone:	9168175995
Mailing Name:	Not reported
Mailing Address:	3028 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061165
Gen County:	San Joaquin
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Off-specification, aged or surplus inorganics
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	1.6
Facility County:	San Joaquin

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

B70
NE
< 1/8
0.055 mi.
289 ft.

PACIFIC ETHANOL STOCKTON LLC
3028 NAVY DRIVE
STOCKTON, CA 95206

Site 3 of 27 in cluster B

FINDS **1012085508**
N/A

Relative:
Lower

Actual:
7 ft.

FINDS:

Registry ID: 110038367022

Environmental Interest/Information System

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

US EPA Risk Management Plan (RMP) database stores the risk management plans reported by companies that handle, manufacture, use, or store certain flammable or toxic substances, as required under section 112(r) of the Clean Air Act (CAA).

B71
NE
< 1/8
0.055 mi.
291 ft.

TIME OIL CO
3015 NAVY DRIVE
STOCKTON, CA 95206

Site 4 of 27 in cluster B

RCRA-SQG **1000197842**
NPDES **CAD000626101**
HIST CORTESE
CA FID UST
SLIC
UST
HIST UST
SWEEPS UST
Notify 65
HAZNET
ENVIROSTOR

Relative:
Lower

Actual:
7 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	TIME OIL CO
Facility address:	3015 NAVY DRIVE STOCKTON, CA 95206
EPA ID:	CAD000626101
Mailing address:	2737 WEST COMMODORE WAY SEATTLE, WA 98199
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	TIME OIL CO.

TIME OIL CO (Continued) **1000197842**

Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 08/14/1980
Facility name: TIME OIL CO
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/15/1984
Date achieved compliance: 01/01/1985
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

TIME OIL CO (Continued) **1000197842**

Evaluation Action Summary:

Evaluation date:	02/15/1984
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	01/01/1985
Evaluation lead agency:	State

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I022428
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	12/1/2009 9:57:00 AM
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	NuStar Terminals Operations Partnership LP
Discharge Address:	2941 Navy Dr
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95206

CORTESE:

Region:	CORTESE
Facility County Code:	39
Reg By:	LTNKA
Reg Id:	390719

CA FID UST:

Facility ID:	39000012
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2094623848
Mail To:	Not reported
Mailing Address:	2737 W COMMODORE WAY
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95206
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SLIC:

Region:	STATE
Facility Status:	**Open - Assessment & Interim Remedial Action**

TIME OIL CO (Continued) **1000197842**

Status Date:	2004-09-01 00:00:00
Global Id:	T0607700557
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.9431971
Longitude:	-121.335304
Case Type:	Cleanup Program Site
Case Worker:	ZZZ
Local Agency:	SAN JOAQUIN COUNTY LOP
RB Case Number:	390719
File Location:	Regional Board
Potential Media Affected:	Soil
Potential Contaminants of Concern:	* Petroleum - Diesel fuels, * Petroleum - Automotive gasolines
Site History:	A work plan was created by Tesoro to address historically elevated petroleum hydrocarbon concentrations and separate phase hydrocarbons (SPH) documented in the vicinities of monitoring wells TS/MW-2 and TO/T-2. The wells are located in the southwest entry area of two Stockton Terminals Technical Committee (STTC) facilities including Tesoro and Time Oil. The Work Plan proposes to conduct a SPH removal and hydrogen peroxide application pilot study in the area of TS/M-2 for a period of one year to evaluate a remedy for this area of the Tesoro facility. The Work Plan does not address the pollution observed in TO/T-2 at the adjacent Time Oil site. HPI is anticipated to start during late firstquarter or early second quarter 2010.

Click here to access the California GeoTracker records for this facility:

UST:

Facility ID:	16580
Latitude:	37.94287
Longitude:	-121.33529

UST SAN JOAQUIN:

Region:	SJ
Facility Id:	FA0002112
Mail Address:	2941 NAVY DR
Mail Care of:	THOMAS, DANIEL
Mail City,St,Zip:	STOCKTON, CA 95206
Tank Rec ID:	TA0502776
Tank Number:	1
Tank Status:	ACTIVE, EXEMPT
Tank Capacity:	4000
Product Type:	05
Product Type Desc:	JET FUEL
Program Element:	2322
Tank Rec ID:	TA0502777
Tank Number:	3
Tank Status:	CLOSED
Tank Capacity:	5000
Product Type:	06
Product Type Desc:	AVIATION FUEL
Program Element:	2380

TIME OIL CO (Continued) **1000197842**

HIST UST:

Region:	STATE
Facility ID:	00000018854
Facility Type:	Other
Other Type:	PETROLEUM TERMINAL
Total Tanks:	0002
Contact Name:	HENRY J. BAILEY
Telephone:	2094623848
Owner Name:	TIME OIL CO.
Owner Address:	2737 W. COMMODORE WAY
Owner City,St,Zip:	SEATTLE, WA 98199

Tank Num:	001
Container Num:	90
Year Installed:	1976
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	06
Tank Construction:	1/4 inches
Leak Detection:	Stock Inventor

Tank Num:	002
Container Num:	121
Year Installed:	1974
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	06
Tank Construction:	1/4 inches
Leak Detection:	Stock Inventor

SWEEPS UST:

Status:	Not reported
Comp Number:	1208
Number:	Not reported
Board Of Equalization:	44-014379
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001208-000001
Actv Date:	Not reported
Capacity:	4000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	WASTE OIL
Number Of Tanks:	2

Status:	Not reported
Comp Number:	1208
Number:	Not reported
Board Of Equalization:	44-014379
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported

TIME OIL CO (Continued) **1000197842**

Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001208-000002
Actv Date: Not reported
Capacity: 5000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: WASTE OIL
Number Of Tanks: Not reported

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 93277

HAZNET:
Year: 2009
Gepaid: CAL000334201
Contact: DAN THOMAS
Telephone: 9257668547
Mailing Name: Not reported
Mailing Address: 2368 MARITIME DR STE 275
Mailing City,St,Zip: ELK GROVE, CA 957583653
Gen County: San Joaquin
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Other organic solids
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.05
Facility County: San Joaquin

ENVIROSTOR:
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 1
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Sacramento
Facility ID: 39510030
Site Code: Not reported
Assembly: Not reported
Senate: Not reported
Special Program: Not reported
Status: Refer: Other Agency
Status Date: 1995-05-15 00:00:00
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 37.943731
Longitude: -121.336258

TIME OIL CO (Continued) **1000197842**

APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: 10097, 10196
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: T0607700557
Alias Type: GeoTracker Global ID
Alias Name: 39510030
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1987-03-30 00:00:00
Comments: SITE SCREENING DONE CONFIRMED SOIL CONTAMINATION FROM UNDERGROUND TANK.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

B72 **STOCKTON TERMINAL** **FINDS** **1009599942**
NE **3015 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.055 mi.
291 ft. **Site 5 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

FINDS:

Registry ID: 110025234798

Environmental Interest/Information System
The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US Facility Response Plan (FRP) contains plans for responding, to the maximum extent practical, to worst case discharges of oil.

B73 NE < 1/8 0.055 mi. 291 ft. | **TIME OIL CO.**
3015 NAVY DRIVE
STOCKTON, CA 95206

Site 6 of 27 in cluster B

HAZNET EMI | **S100946660 N/A**

Relative: Lower

Actual: 7 ft.

HAZNET:

Year:	1996
Gepaid:	CAD000626101
Contact:	TIME OIL CO
Telephone:	2062866445
Mailing Name:	Not reported
Mailing Address:	2737 W COMMODORE WY
Mailing City,St,Zip:	SEATTLE, WA 981990000
Gen County:	San Joaquin
TSD EPA ID:	CAD980818645
TSD County:	Kern
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	H01
Tons:	.3753
Facility County:	San Joaquin

Year:	1996
Gepaid:	CAD000626101
Contact:	TIME OIL CO
Telephone:	2062866445
Mailing Name:	Not reported
Mailing Address:	2737 W COMMODORE WY
Mailing City,St,Zip:	SEATTLE, WA 981990000
Gen County:	San Joaquin
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	R01
Tons:	20.8500
Facility County:	San Joaquin

Year:	1996
Gepaid:	CAD000626101
Contact:	TIME OIL CO
Telephone:	2062866445
Mailing Name:	Not reported
Mailing Address:	2737 W COMMODORE WY
Mailing City,St,Zip:	SEATTLE, WA 981990000
Gen County:	San Joaquin
TSD EPA ID:	CAD083166728
TSD County:	Stanislaus
Waste Category:	Unspecified oil-containing waste
Disposal Method:	R01
Tons:	66.7200
Facility County:	San Joaquin

Year:	1996
Gepaid:	CAD000626101
Contact:	TIME OIL CO
Telephone:	2062866445
Mailing Name:	Not reported
Mailing Address:	2737 W COMMODORE WY
Mailing City,St,Zip:	SEATTLE, WA 981990000

TIME OIL CO. (Continued) **S100946660**

Gen County:	San Joaquin
TSD EPA ID:	AZD982441263
TSD County:	99
Waste Category:	Other organic solids
Disposal Method:	T03
Tons:	.6000
Facility County:	San Joaquin

Year:	1995
Gepaid:	CAD000626101
Contact:	TIME OIL CO
Telephone:	2062866445
Mailing Name:	Not reported
Mailing Address:	2737 W COMMODORE WY
Mailing City,St,Zip:	SEATTLE, WA 981990000
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Contaminated soil from site clean-up
Disposal Method:	Not reported
Tons:	.2500
Facility County:	San Joaquin

Click this hyperlink while viewing on your computer to access
4 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	1995
County Code:	39
Air Basin:	SJV
Facility ID:	860
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1996
County Code:	39
Air Basin:	SJV
Facility ID:	860
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0

TIME OIL CO. (Continued) **S100946660**

SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
County Code:	39
Air Basin:	SJV
Facility ID:	860
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
County Code:	39
Air Basin:	SJV
Facility ID:	860
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
County Code:	39
Air Basin:	SJV
Facility ID:	860
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
County Code:	39

TIME OIL CO. (Continued) **S100946660**

Air Basin:	SJV
Facility ID:	860
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

B74 **YARA NORTH AMERICA** **WDS** **S103651024**
NE **3019 NAVY DR** **NPDES** **N/A**
< 1/8 **STOCKTON, CA 95206** **HAZNET**
0.056 mi.
298 ft. **Site 7 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

CA WDS:

Facility ID:	5S 39I013762
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2094660942
Facility Contact:	ED RIBLE
Agency Name:	HYDRO AGRI NORTH AMERICA INC
Agency Address:	PO BOX 207
Agency City,St,Zip:	STOCKTON 0
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	?
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.

YARA NORTH AMERICA (Continued) **S103651024**

Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I013762
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	2/27/1998
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Yara North America Inc
Discharge Address:	PO Box 207
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95201

HAZNET:

Year:	1994
Gepaid:	CAP400479592
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	Not reported
Mailing City,St,Zip:	000000000
Gen County:	0
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Contaminated soil from site clean-up
Disposal Method:	Not reported
Tons:	3.5000
Facility County:	0

B75 **HYDROAGRI NORTH AMERICA** **SLIC** **S106486471**
NE **3019 NAVY DRIVE** **N/A**
< 1/8 **STOCKTON, CA**
0.056 mi.
298 ft. **Site 8 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Inactive**
Status Date:	1998-07-31 00:00:00
Global Id:	SLT5S1623202
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported

HYDROAGRI NORTH AMERICA (Continued) **S106486471**

Latitude:	37.957971
Longitude:	-121.254465
Case Type:	Cleanup Program Site
Case Worker:	ZZZ
Local Agency:	Not reported
RB Case Number:	SLT5S162
File Location:	Not reported
Potential Media Affected:	Soil, Under Investigation
Potential Contaminants of Concern:	Nitrate
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

B76 **HYDRO AGRI NORTH AMERICA** **RCRA-SQG** **1001122835**
NE **3019 NAVY ST** **FINDS** **CAR000016733**
< 1/8 **STOCKTON, CA 95206** **HAZNET**
0.056 mi.
298 ft. **Site 9 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

RCRA-SQG:

Date form received by agency:	02/22/2002
Facility name:	HYDRO AGRI NORTH AMERICA
Facility address:	3019 NAVY ST STOCKTON, CA 95206
EPA ID:	CAR000016733
Mailing address:	PO BOX 207 STOCKTON, CA 95201
Contact:	EDWARD R RIBLE
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	(209) 466-0942
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	HYDRO AGRI N AMERICA INC
Owner/operator address:	100 N TAMPA ST TAMPA, FL 33602
Owner/operator country:	Not reported
Owner/operator telephone:	(813) 222-5700
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No

HYDRO AGRI NORTH AMERICA (Continued) **1001122835**

Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/22/2002
Facility name: HYDRO AGRI NORTH AMERICA
Classification: Large Quantity Generator

Date form received by agency: 12/04/1996
Facility name: HYDRO AGRI NORTH AMERICA
Site name: HYDRO AGRI N AMERICA INC
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002915267

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Year: 2008
Gepaid: CAR000016733
Contact: ED RIBLE
Telephone: 2094660942
Mailing Name: Not reported
Mailing Address: PO BOX 207
Mailing City,St,Zip: STOCKTON, CA 952010207
Gen County: San Joaquin
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Off-specification, aged or surplus organics
Disposal Method: OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons: 58.41
Facility County: San Joaquin

Year: 2007
Gepaid: CAR000016733
Contact: ED RIBLE

HYDRO AGRI NORTH AMERICA (Continued) **1001122835**

Telephone:	2094660942
Mailing Name:	Not reported
Mailing Address:	PO BOX 207
Mailing City,St,Zip:	STOCKTON, CA 952010207
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Off-specification, aged or surplus inorganics
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	25.02
Facility County:	San Joaquin

Year:	2007
Gepaid:	CAR000016733
Contact:	ED RIBLE
Telephone:	2094660942
Mailing Name:	Not reported
Mailing Address:	PO BOX 207
Mailing City,St,Zip:	STOCKTON, CA 952010207
Gen County:	San Joaquin
TSD EPA ID:	CAD980887418
TSD County:	Alameda
Waste Category:	Aqueous solution with total organic residues 10 percent or more
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	20.85
Facility County:	San Joaquin

Year:	2001
Gepaid:	CAR000016733
Contact:	ED RIBLE
Telephone:	2094660942
Mailing Name:	Not reported
Mailing Address:	PO BOX 207
Mailing City,St,Zip:	STOCKTON, CA 952010207
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	Los Angeles
Waste Category:	Unspecified aqueous solution
Disposal Method:	R01
Tons:	20.85
Facility County:	Not reported

Year:	2000
Gepaid:	CAR000016733
Contact:	HYDRO AGRI N AMERICA INC
Telephone:	2094660942
Mailing Name:	Not reported
Mailing Address:	PO BOX 207
Mailing City,St,Zip:	STOCKTON, CA 952010207
Gen County:	San Joaquin
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Unspecified aqueous solution
Disposal Method:	R01
Tons:	180.5610

HYDRO AGRI NORTH AMERICA (Continued) **1001122835**

Facility County: San Joaquin

Click this hyperlink while viewing on your computer to access
5 additional CA_HAZNET: record(s) in the EDR Site Report.

B77 **STOCKTON PETROLEUM** **UST** **U004024952**
NE **3025 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.059 mi.
311 ft. **Site 10 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

UST SAN JOAQUIN:

Region:	SJ
Facility Id:	FA0005851
Mail Address:	PO BOX 326
Mail Care of:	MCILRATH, JAY
Mail City,St,Zip:	STOCKTON, CA 95201
Tank Rec ID:	TA0503484
Tank Number:	1
Tank Status:	CLOSED
Tank Capacity:	10000
Product Type:	1A
Product Type Desc:	REGULAR UNLEADED
Program Element:	2380
Tank Rec ID:	TA0503485
Tank Number:	2
Tank Status:	CLOSED
Tank Capacity:	10000
Product Type:	04
Product Type Desc:	GASOHOL
Program Element:	2380
Tank Rec ID:	TA0503486
Tank Number:	3
Tank Status:	CLOSED
Tank Capacity:	10000
Product Type:	1A
Product Type Desc:	REGULAR UNLEADED
Program Element:	2380

B78 **STOCKTON PETROLEUM** **CA FID UST** **S101625618**
NE **3025 NAVY DR** **N/A**
< 1/8 **STOCKTON, CA 95206**
0.059 mi.
311 ft. **Site 11 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

CA FID UST:

Facility ID:	39004134
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported

STOCKTON PETROLEUM (Continued) **S101625618**

Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	3025 NAVY DR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95206
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

B79 **STOCKTON PETROLEUM** **HIST CORTESE** **U001603738**
NE **3025 NAVY DR** **SLIC** **N/A**
< 1/8 **STOCKTON, CA 95206** **HIST UST**
0.059 mi. **SWEEPS UST**
311 ft. **Site 12 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	39
Reg By:	LTNKA
Reg Id:	390868

SLIC:

Region:	STATE
Facility Status:	**Open - Inactive**
Status Date:	1994-11-24 00:00:00
Global Id:	T0607700695
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.9433481
Longitude:	-121.3354721
Case Type:	Cleanup Program Site
Case Worker:	ZZZ
Local Agency:	Not reported
RB Case Number:	390868
File Location:	Not reported
Potential Media Affected:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

HIST UST:

Region:	STATE
Facility ID:	00000038814
Facility Type:	Other
Other Type:	BULK PLANT
Total Tanks:	0003
Contact Name:	JAY MCILRATH
Telephone:	2094628707
Owner Name:	PORT OF STOCKTON
Owner Address:	2201 W. WASHINGTON
Owner City,St,Zip:	STOCKTON, CA 95206

STOCKTON PETROLEUM (Continued) **U001603738**

Tank Num: 001
Container Num: 1
Year Installed: 1967
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: 1967
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: 1967
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor

SWEEPS UST:
Status: A
Comp Number: 1209
Number: 1
Board Of Equalization: 44-024587
Ref Date: 10-09-91
Act Date: 10-09-91
Created Date: 07-06-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001209-000001
Actv Date: 05-01-89
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: A
Comp Number: 1209
Number: 1
Board Of Equalization: 44-024587
Ref Date: 10-09-91
Act Date: 10-09-91
Created Date: 07-06-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001209-000002
Actv Date: 05-01-89
Capacity: 10000

STOCKTON PETROLEUM (Continued) **U001603738**

Tank Use:	M.V. FUEL
Stg:	P
Content:	DIESEL
Number Of Tanks:	Not reported
Status:	A
Comp Number:	1209
Number:	1
Board Of Equalization:	44-024587
Ref Date:	10-09-91
Act Date:	10-09-91
Created Date:	07-06-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001209-000003
Actv Date:	05-01-89
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	P
Content:	LEADED
Number Of Tanks:	Not reported

B80 **NAVY ST. & WASHINGTON** **ERNS** **90190730**
NE **NAVY ST. & WASHINGTON** **N/A**
< 1/8 **STOCKTON, CA**
0.089 mi.
469 ft. **Site 13 of 27 in cluster B**

Relative:
Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
8 ft.

B81 **PACIFIC CUSTOM MATERIALS** **EMI** **S109282215**
NE **2845 W. WASHINGTON ST** **N/A**
< 1/8 **STOCKTON, CA 95203**
0.109 mi.
577 ft. **Site 14 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

EMI:

Year:	2006
County Code:	39
Air Basin:	SJV
Facility ID:	5040
Air District Name:	SJU
SIC Code:	3295
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2007
County Code:	39

PACIFIC CUSTOM MATERIALS (Continued) **S109282215**

Air Basin:	SJV
Facility ID:	5040
Air District Name:	SJU
SIC Code:	3295
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	5040
Air District Name:	SJU
SIC Code:	3295
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

B82 **PACIFIC CUSTOM MATERIALS** **EMI** **S108432771**
NE **2845 W. WASHINGTON STREET** **N/A**
< 1/8 **STOCKTON, CA**
0.109 mi.
577 ft. **Site 15 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

EMI:

Year:	2005
County Code:	39
Air Basin:	SJV
Facility ID:	5040
Air District Name:	SJU
SIC Code:	3295
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	10.46812679018545014
Part. Matter 10 Micrometers & Smllr Tons/Yr:	4.75567000078125

B83 NE < 1/8 0.109 mi. 577 ft. | **TXI RIVERSIDE CEMENT CO**
2845 W WASHINGTON ST
STOCKTON, CA 95201
Site 16 of 27 in cluster B | **WDS NPDES HAZNET EMI** | **S105092123 N/A**

Relative: Lower

Actual: 7 ft.

CA WDS:

Facility ID:	5S 39I013770
Facility Type:	Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2099480581
Facility Contact:	BRUCE BRAZIL
Agency Name:	BORAL MATERIAL TECHNOLOGIES
Agency Address:	PO BOX 1049
Agency City,St,Zip:	STOCKTON 952032926
Agency Contact:	BRUCE BRAZIL
Agency Telephone:	2099480581
Agency Type:	Private
SIC Code:	3241
SIC Code 2:	Not reported
Primary Waste:	Stormwater Runoff
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The facility is not a POTW.
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available

TXI RIVERSIDE CEMENT CO (Continued) **S105092123**

WDID:	5S39I013770
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	2/27/1998
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	TXI Riverside Cement
Discharge Address:	PO Box 51479
Discharge City:	Ontario
Discharge State:	Ca
Discharge Zip:	91761

HAZNET:

Year:	2009
Gepaid:	CAL000205124
Contact:	DESIREA HAGGARD EXT 335
Telephone:	7602455321
Mailing Name:	Not reported
Mailing Address:	PO BOX 146
Mailing City,St,Zip:	ORO GRANDE, CA 923680146
Gen County:	San Joaquin
TSD EPA ID:	CAD093459485
TSD County:	Fresno
Waste Category:	Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.02919
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAL000205124
Contact:	DESIREA HAGGARD EXT 335
Telephone:	7602455321
Mailing Name:	Not reported
Mailing Address:	PO BOX 146
Mailing City,St,Zip:	ORO GRANDE, CA 923680146
Gen County:	San Joaquin
TSD EPA ID:	TXD077603371
TSD County:	99
Waste Category:	Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.1095
Facility County:	San Joaquin

Year:	2008
Gepaid:	CAL000205124
Contact:	DESIREA HAGGARD EXT 335
Telephone:	7602455321
Mailing Name:	Not reported
Mailing Address:	PO BOX 146
Mailing City,St,Zip:	ORO GRANDE, CA 923680146
Gen County:	San Joaquin
TSD EPA ID:	TXD077603371
TSD County:	99
Waste Category:	Other still bottom waste

TXI RIVERSIDE CEMENT CO (Continued) **S105092123**

Disposal Method:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.04
Facility County:	San Joaquin

Year:	2008
Gepaid:	CAC002632422
Contact:	DON GILBERT
Telephone:	9259744170
Mailing Name:	Dir of Env Svs
Mailing Address:	3401 Crow Canyon Rd
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Not reported
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	15.1704
Facility County:	San Joaquin

Year:	2006
Gepaid:	CAL000205124
Contact:	GREGORY KNAPP - ENV MANAGER
Telephone:	7602455321
Mailing Name:	Not reported
Mailing Address:	PO BOX 146
Mailing City,St,Zip:	ORO GRANDE, CA 923680000
Gen County:	San Joaquin
TSD EPA ID:	CAD044003556
TSD County:	Yolo
Waste Category:	Unspecified oil-containing waste
Disposal Method:	H14
Tons:	0.41
Facility County:	San Joaquin

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4 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	691
Air District Name:	SJU
SIC Code:	3273
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1.488864062924592391
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1.369754937890625

B84
NE
< 1/8
0.109 mi.
577 ft.

PACIFIC CUSTOM MATERIALS
2845 W. WASHINGTON STREET
STOCKTON, CA 95203

Site 17 of 27 in cluster B

FINDS **1011985734**
N/A

Relative:
Lower

Actual:
7 ft.

FINDS:

Registry ID: 110037977348

Environmental Interest/Information System
The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

B85
NE
< 1/8
0.114 mi.
602 ft.

TRI-DELTA FERTILIZER INC
2835 W WASHINGTON ST
STOCKTON, CA 95203

Site 18 of 27 in cluster B

HAZNET **S102797191**
N/A

Relative:
Lower

Actual:
7 ft.

HAZNET:

Year:	2005
Gepaid:	CAC002598107
Contact:	JEFF MARMARELLI
Telephone:	2094654261
Mailing Name:	Not reported
Mailing Address:	2835 W WASHINGTON ST
Mailing City,St,Zip:	STOCKTON, CA 952030000
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	D80
Tons:	85.24
Facility County:	Not reported

Year:	2005
Gepaid:	CAL000173151
Contact:	ED GARZA/ENV. SAFETY OFF
Telephone:	2099420417
Mailing Name:	Not reported
Mailing Address:	PO BOX 759
Mailing City,St,Zip:	STOCKTON, CA 952010759
Gen County:	San Joaquin
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	R01
Tons:	0.22
Facility County:	Not reported

Year:	2002
Gepaid:	CAL000173151
Contact:	ED GARZA/ENV. SAFETY OFF
Telephone:	2099420417
Mailing Name:	Not reported
Mailing Address:	PO BOX 759
Mailing City,St,Zip:	STOCKTON, CA 952010759

TRI-DELTA FERTILIZER INC (Continued) **S102797191**

Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	San Mateo
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	D80
Tons:	1.45
Facility County:	Not reported

Year:	2002
Gepaid:	CAL000173151
Contact:	ED GARZA/ENV. SAFETY OFF
Telephone:	2099420417
Mailing Name:	Not reported
Mailing Address:	PO BOX 759
Mailing City,St,Zip:	STOCKTON, CA 952010759
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	San Mateo
Waste Category:	Off-specification, aged or surplus inorganics
Disposal Method:	D80
Tons:	25.29
Facility County:	Not reported

Year:	2001
Gepaid:	CAL000173151
Contact:	ED GARZA/ENV. SAFETY OFF
Telephone:	2099420417
Mailing Name:	Not reported
Mailing Address:	PO BOX 759
Mailing City,St,Zip:	STOCKTON, CA 952010759
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	San Mateo
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	D80
Tons:	1
Facility County:	Not reported

Click this hyperlink while viewing on your computer to access
4 additional CA_HAZNET: record(s) in the EDR Site Report.

B86 **LESCO, INC. (FORMER TRI DELTA FERTILIZER)** **SLIC** **S107473161**
NE **2829 WEST WASHINGTON STREET** **N/A**
< 1/8 **STOCKTON, CA 95203**
0.117 mi.
617 ft. **Site 19 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	2005-09-08 00:00:00
Global Id:	SL0607725004
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.947186
Longitude:	-121.336724
Case Type:	Cleanup Program Site
Case Worker:	AST

LESCO, INC. (FORMER TRI DELTA FERTILIZER) (Continued) **S107473161**

Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern:	* Fertilizers
Site History:	Prior to 1985, site operated by Delft Fertilizer. In 1985, Tri-Delta operates. In 1993, Tri-Delta expands to adjacent property and paves most of the site. In about 1997, Lesco operated the site. In 1998, west pond was excavated to 1 ft bgs and filled with clay. Unlined ponds to the north and west were excavated. In 2005 Lesco terminated operations. Jin 2007 John Deere purchased Lesco and their facilities. Not reported

Click here to access the California GeoTracker records for this facility:

B87 **LESCO DISTRIBUTION CENTER** **SSTS** **1004439694**
NE **2829 W. WASHINGTON** **FINDS** **N/A**
< 1/8 **STOCKTON, CA 95203**
0.117 mi.
617 ft. **Site 20 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

SSTS:

Product:	CRAB GRASS CONTROL PLUS
Contact:	Not reported
Status:	Active
Registration Number:	059197CA 001
Report Year:	Not reported
Permit:	Registered
Product Number:	06271900178010942
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	OSH WEED N FEED
Contact:	Not reported
Status:	Active
Registration Number:	059197CA 001
Report Year:	Not reported
Permit:	Registered
Product Number:	00221700643010935
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	PRE EMERGENT WEED CONTROL
Contact:	Not reported
Status:	Active
Registration Number:	059197CA 001

LESCO DISTRIBUTION CENTER (Continued) **1004439694**

Report Year:	Not reported
Permit:	Registered
Product Number:	06271900151010942
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	PREEMERGENT WEED CONTROL
Contact:	Not reported
Status:	Active
Registration Number:	059197CA 001
Report Year:	Not reported
Permit:	Registered
Product Number:	01040400082
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	UHS CRAB GRASS PREVENTER PLUS
Contact:	Not reported
Status:	Active
Registration Number:	059197CA 001
Report Year:	Not reported
Permit:	Registered
Product Number:	03470400776065783
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	GREEN CHARM PREMIUM 27-4-6 WEED & FEED
Contact:	Not reported
Status:	Active
Registration Number:	059197CA 001
Report Year:	1992
Permit:	Registered
Product Number:	00022800179
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported

LESCO DISTRIBUTION CENTER (Continued) **1004439694**

Zero product: Not reported
Pesticide RUP report: Not reported

Product: OSH PREMIUM WEED N FEED
Contact: Not reported
Status: Active
Registration Number: 059197CA 001
Report Year: 1996
Permit: Registered
Product Number: 00221700643010935
Product Type: End-use blend, formulation, or concentrate
Product Class: Not reported
Product Use: Not reported
UOM: T
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PREEMERGENT BROADLEAF CONTROL
Contact: Not reported
Status: Active
Registration Number: 059197CA 001
Report Year: 1996
Permit: Registered
Product Number: 06271900178010942
Product Type: End-use blend, formulation, or concentrate
Product Class: Not reported
Product Use: Not reported
UOM: T
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: TURGO CRABGRASS PREVENTER PLUS
Contact: Not reported
Status: Active
Registration Number: 059197CA 001
Report Year: 1996
Permit: Registered
Product Number: 06271900150065783
Product Type: End-use blend, formulation, or concentrate
Product Class: Not reported
Product Use: Not reported
UOM: T
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PREEMERGENT GRASS WEED CONTROL
Contact: Not reported
Status: Active
Registration Number: 059197CA 001
Report Year: 1996
Permit: Registered

LESCO DISTRIBUTION CENTER (Continued) **1004439694**

Product Number: 06271900151010942
Product Type: End-use blend, formulation, or concentrate
Product Class: Not reported
Product Use: Not reported
UOM: T
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: OSH PREMIUM / TAGLINE WEED & FEED
Contact: Not reported
Status: Active
Registration Number: 059197CA 001
Report Year: 1997
Permit: Registered
Product Number: 00221700643010935
Product Type: End-use blend, formulation, or concentrate
Product Class: Not reported
Product Use: Not reported
UOM: T
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PRE EMERGENT BROADLEAF CONTROL
Contact: Not reported
Status: Active
Registration Number: 059197CA 001
Report Year: 1997
Permit: Registered
Product Number: 06271900178010942
Product Type: End-use blend, formulation, or concentrate
Product Class: Not reported
Product Use: Not reported
UOM: T
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: TURFGO CRABGRASS PREVENTER PLUS
Contact: Not reported
Status: Active
Registration Number: 059197CA 001
Report Year: 1997
Permit: Registered
Product Number: 06271900150065783
Product Type: End-use blend, formulation, or concentrate
Product Class: Not reported
Product Use: Not reported
UOM: T
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

LESCO DISTRIBUTION CENTER (Continued) **1004439694**

Product:	PRE EMERGENT GRASS WEED CONTROL
Contact:	Not reported
Status:	Active
Registration Number:	059197CA 001
Report Year:	1997
Permit:	Registered
Product Number:	06271900151010942
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Not reported
Product Use:	Not reported
UOM:	T
Market:	Marketed in the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	VHS CRABGRASS PREVENTER PLUS
Contact:	Not reported
Status:	Active
Registration Number:	059197CA 001
Report Year:	1997
Permit:	Registered
Product Number:	03470400776065783
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Not reported
Product Use:	Not reported
UOM:	T
Market:	Marketed in the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	CHEM TURF STARTER FERTILIZER (EXPORT TO AUSTRALIA)
Contact:	Not reported
Status:	Not reported
Registration Number:	059197CA 001
Report Year:	1999
Permit:	Unregistered
Product Number:	059197CF00001
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Exported out of the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	ULTRA GREEN CRAB GRASS CONTROL
Contact:	Not reported
Status:	Not reported
Registration Number:	059197CA 001
Report Year:	1999
Permit:	Registered
Product Number:	06271900150067876
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide

LESCO DISTRIBUTION CENTER (Continued) **1004439694**

Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: TRUGREEN CRAB GRASS PREVENTIVE
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001
Report Year: 1999
Permit: Registered
Product Number: 00022800300071902
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: TEAM WEED CONTROL
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001
Report Year: 1999
Permit: Registered
Product Number: 01040400056
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PREMIUM / PROFESSIONAL TURF WEED & FEED
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001
Report Year: 1999
Permit: Registered
Product Number: 00221700643
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PREEMERGENT WEED CONTROL/TRUGREEN CRAB GRASS PREVENTER
Contact: Not reported

LESCO DISTRIBUTION CENTER (Continued) **1004439694**

Status: Not reported
Registration Number: 059197CA 001
Report Year: 1999
Permit: Registered
Product Number: 01040400082
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PRE-EMERGENT WEED CONTROL
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001
Report Year: 1999
Permit: Registered
Product Number: 06271900151010942
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PRE-EMERGENT WEED CONTROL
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001
Report Year: 1999
Permit: Registered
Product Number: 01040400086
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CRAB GRASS PREVENTIVE PLUS
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001
Report Year: 1999
Permit: Registered
Product Number: 03470400776065783
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported

LESCO DISTRIBUTION CENTER (Continued) **1004439694**

Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PREMIUM / PROFESSIONAL TURF WEED & FEED
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001
Report Year: 2000
Permit: Registered
Product Number: 00221700643
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PREEMERGENT WEED CONTROL/TRUGREEN CRAB GRASS PREVENTER
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001
Report Year: 2000
Permit: Registered
Product Number: 01040400082
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PRE-EMERGENT WEED CONTROL
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001
Report Year: 2000
Permit: Registered
Product Number: 01040400086
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: PRE EMERGENT WEED CONTROLLER
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001

LESCO DISTRIBUTION CENTER (Continued) **1004439694**

Report Year:	2000
Permit:	Registered
Product Number:	00022800300
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	LILLY MILLER WEED 'N' FEED
Contact:	Not reported
Status:	Not reported
Registration Number:	059197CA 001
Report Year:	2000
Permit:	Registered
Product Number:	06271900150
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	GREENALL WEED 'N' FEED
Contact:	Not reported
Status:	Not reported
Registration Number:	059197CA 001
Report Year:	2000
Permit:	Registered
Product Number:	06271900151
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	PROFESSIONAL TURF
Contact:	Not reported
Status:	Not reported
Registration Number:	059197CA 001
Report Year:	2000
Permit:	Registered
Product Number:	03470400776
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported

LESCO DISTRIBUTION CENTER (Continued) **1004439694**

Zero product: Not reported
Pesticide RUP report: Not reported

Product: RONSTAR PLUS STARTER FERTILIZER
Contact: Not reported
Status: Not reported
Registration Number: 059197CA 001
Report Year: 2000
Permit: Unregistered
Product Number: 059197CF00001
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Exported out of the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

FINDS:

Registry ID: 110000484832

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

US EPA Risk Management Plan (RMP) database stores the risk management plans reported by companies that handle, manufacture, use, or store certain flammable or toxic substances, as required under section 112(r) of the Clean Air Act (CAA).

B88 **LESCO, INC** **SSTS** **1009305901**
NE **2829 W WASHINGTON** **N/A**
< 1/8 **STOCKTON, CA 95203**
0.117 mi.
617 ft. **Site 21 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

SSTS:

Product:	LESCO DIMENSION 0.15% PLUS FERTILIZER
Contact:	Not reported
Status:	Not reported
Registration Number:	059197CA001
Report Year:	2001
Permit:	Registered
Product Number:	01040400086
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	09
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	LESCO PRE-M PLUS FERTILIZER (& SUPPLE 71902)
Contact:	Not reported
Status:	Not reported
Registration Number:	059197CA001
Report Year:	2001
Permit:	Registered
Product Number:	01040400082
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	09
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	LESCO PREMIUM WEED & FEED & (-71902 SUPPLE.)
Contact:	Not reported
Status:	Not reported
Registration Number:	059197CA001
Report Year:	2001
Permit:	Registered
Product Number:	00221700643
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	09
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	LESCO RONSTAR 0.95% PLUS FERTILIZER
Contact:	Not reported
Status:	Not reported
Registration Number:	059197CA001

LESCO, INC (Continued) **1009305901**

Report Year: 2001
Permit: Registered
Product Number: 01040400063
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: 09
Zero product: Not reported
Pesticide RUP report: Not reported

Product: LILLY MILLER ULTRA GREEN CRAB GRASS CONTROL (SUPPLE -802)
Contact: Not reported
Status: Not reported
Registration Number: 059197CA001
Report Year: 2001
Permit: Registered
Product Number: 06271900150
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: 09
Zero product: Not reported
Pesticide RUP report: Not reported

Product: LESCO DIMENSION 0.10% PLUS FERTILIZER
Contact: Not reported
Status: Not reported
Registration Number: 059197CA001
Report Year: 2002
Permit: Registered
Product Number: 01040400085
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States and exported out of the United States
Region: 09
Zero product: Not reported
Pesticide RUP report: Not reported

Product: LESCO DIMENSION 0.15% PLUS FERTILIZER & SUPP -71902
Contact: Not reported
Status: Not reported
Registration Number: 059197CA001
Report Year: 2002
Permit: Registered
Product Number: 01040400086
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States and exported out of the United States
Region: 09

LESCO, INC (Continued) **1009305901**

Zero product: Not reported
Pesticide RUP report: Not reported

Product: LESCO PRE-M PLUS FERTILIZER (& SUPPLE 71902)
Contact: Not reported
Status: Not reported
Registration Number: 059197CA001
Report Year: 2002
Permit: Registered
Product Number: 01040400082
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States and exported out of the United States
Region: 09
Zero product: Not reported
Pesticide RUP report: Not reported

Product: LESCO PREMIUM WEED & FEED & (-59197 SUPPLE.)
Contact: Not reported
Status: Not reported
Registration Number: 059197CA001
Report Year: 2002
Permit: Registered
Product Number: 00221700643
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Exported out of the United States
Region: 09
Zero product: Not reported
Pesticide RUP report: Not reported

Product: LESCO RONSTAR 0.95% PLUS FERTILIZER
Contact: Not reported
Status: Not reported
Registration Number: 059197CA001
Report Year: 2002
Permit: Registered
Product Number: 01040400063
Product Type: End-use blend, formulation, or concentrate
Product Class: Herbicide
Product Use: All other products
UOM: Not reported
Market: Marketed in the United States
Region: 09
Zero product: Not reported
Pesticide RUP report: Not reported

Product: LILLY MILLER ULTRA GREEN CRAB GRASS CONTROL (SUPPLE -802)
Contact: Not reported
Status: Not reported
Registration Number: 059197CA001
Report Year: 2002
Permit: Registered

LESCO, INC (Continued) **1009305901**

Product Number:	06271900150
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	09
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	PROFESSIONAL TURF PROD WEED & FEED (SUPP -71902)
Contact:	Not reported
Status:	Not reported
Registration Number:	059197CA001
Report Year:	2003
Permit:	Registered
Product Number:	00022800301
Product Type:	Repackaged or relabeled
Product Class:	Herbicide
Product Use:	All other products
UOM:	Not reported
Market:	Marketed in the United States
Region:	09
Zero product:	Not reported
Pesticide RUP report:	Not reported

B89 **LESCO, INC** **EMI** **S106248733**
NE **2829 W WASHINGTON ST** **N/A**
< 1/8 **STOCKTON, CA 95203**
0.117 mi.
617 ft. **Site 22 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

EMI:

Year:	2000
County Code:	39
Air Basin:	SJV
Facility ID:	878
Air District Name:	SJU
SIC Code:	2875
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	39
Air Basin:	SJV
Facility ID:	878
Air District Name:	SJU
SIC Code:	2875
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported

LESCO, INC (Continued) **S106248733**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

B90 **TRI DELTA/LESCO** **ICIS** **1011620206**
NE **2829 W. WASHINGTON STOCKTON CA 95203** **N/A**
< 1/8 **STOCKTON, CA 95203**
0.118 mi.
622 ft. **Site 23 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

ICIS:

Enforcement Action ID:	09-2003-0187
FRS ID:	110000484832
Program ID:	RMP 100000076918
Action Name:	LESCO
Facility Name:	TRI DELTA/LESCO
Facility Address:	2829 W. WASHINGTON STOCKTON CA 95203 STOCKTON, California 95203
Enforcement Action Type:	FIFRA 14A Action For Penalty
Facility County:	San Joaquin
EPA Region #:	10

Enforcement Action ID:	09-2003-0187
FRS ID:	110000484832
Program ID:	NEI NTICAT$13210
Action Name:	LESCO
Facility Name:	LESCO TRI-DELTA FERTILIZER
Facility Address:	2829 W. WASHINGTON STOCKTON CA 95203 STOCKTON, California 95203
Enforcement Action Type:	FIFRA 14A Action For Penalty
Facility County:	San Joaquin
EPA Region #:	10

Enforcement Action ID:	09-2003-0187
FRS ID:	110000484832
Program ID:	FRS 110000484832
Action Name:	LESCO
Facility Name:	LESCO DISTRIBUTION CENTER
Facility Address:	2829 W. WASHINGTON STOCKTON CA 95203 STOCKTON, California 95203
Enforcement Action Type:	FIFRA 14A Action For Penalty
Facility County:	San Joaquin
EPA Region #:	10

Enforcement Action ID:	09-2003-0187
FRS ID:	110000484832
Program ID:	NEI NEICAT$13210
Action Name:	LESCO
Facility Name:	Not reported
Facility Address:	2829 W. WASHINGTON STOCKTON CA 95203 STOCKTON, California 95203
Enforcement Action Type:	FIFRA 14A Action For Penalty
Facility County:	San Joaquin

TRI DELTA/LESCO (Continued) **1011620206**

EPA Region #: 10

Enforcement Action ID: 09-2003-0187
FRS ID: 110000484832
Program ID: EIS 7125011
Action Name: LESCO
Facility Name: LESCO INC
Facility Address: 2829 W. WASHINGTON STOCKTON CA 95203
STOCKTON, California 95203
Enforcement Action Type: FIFRA 14A Action For Penalty
Facility County: San Joaquin
EPA Region #: 10

Enforcement Action ID: 09-2003-0187
FRS ID: 110000484832
Program ID: TRIS 95203TRDLT2829W
Action Name: LESCO
Facility Name: LESCO INC. STOCKTON PLANT
Facility Address: 2829 W. WASHINGTON STOCKTON CA 95203
STOCKTON, California 95203
Enforcement Action Type: FIFRA 14A Action For Penalty
Facility County: San Joaquin
EPA Region #: 10

Program ID: EIS 7125011
Facility Name: LESCO DISTRIBUTION CENTER
Address: 2829 W. WASHINGTON
Tribal Indicator: N
Fed Facility: Not reported
NAIC Code: Not reported
SIC Code: 5191

Program ID: FRS 110000484832
Facility Name: LESCO DISTRIBUTION CENTER
Address: 2829 W. WASHINGTON
Tribal Indicator: N
Fed Facility: Not reported
NAIC Code: Not reported
SIC Code: 5191

Program ID: NEI NEICAT$13210
Facility Name: LESCO DISTRIBUTION CENTER
Address: 2829 W. WASHINGTON
Tribal Indicator: N
Fed Facility: Not reported
NAIC Code: Not reported
SIC Code: 5191

Program ID: NEI NTICAT$13210
Facility Name: LESCO DISTRIBUTION CENTER
Address: 2829 W. WASHINGTON
Tribal Indicator: N
Fed Facility: Not reported
NAIC Code: Not reported
SIC Code: 5191

TRI DELTA/LESCO (Continued) **1011620206**

Program ID:	RMP 100000076918
Facility Name:	LESCO DISTRIBUTION CENTER
Address:	2829 W. WASHINGTON
Tribal Indicator:	N
Fed Facility:	Not reported
NAIC Code:	Not reported
SIC Code:	5191

Program ID:	TRIS 95203TRDLT2829W
Facility Name:	LESCO DISTRIBUTION CENTER
Address:	2829 W. WASHINGTON
Tribal Indicator:	N
Fed Facility:	Not reported
NAIC Code:	Not reported
SIC Code:	5191

B91 **1X RIVERSIDE CEMENT COMPANY** **HAZNET** **S103947605**
NE **2825 WEST WASHINGTON ST.** **N/A**
< 1/8 **STOCKTON, CA 95203**
0.119 mi.
628 ft. **Site 24 of 27 in cluster B**

Relative:
Lower

Actual:
7 ft.

HAZNET:

Year:	1996
Gepaid:	CAC000827296
Contact:	RIVERSIDE CEMENT COMPANY
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	P.O.BOX 158
Mailing City,St,Zip:	ORO GRANDE, CA 923680000
Gen County:	San Joaquin
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Liquids with lead >= 500 Mg./L
Disposal Method:	R01
Tons:	.2000
Facility County:	San Joaquin

Year:	1996
Gepaid:	CAC000827296
Contact:	RIVERSIDE CEMENT COMPANY
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	P.O.BOX 158
Mailing City,St,Zip:	ORO GRANDE, CA 923680000
Gen County:	San Joaquin
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Liquids with pH <= 2
Disposal Method:	R01
Tons:	.6880
Facility County:	San Joaquin

Year:	1996
Gepaid:	CAC000827296
Contact:	RIVERSIDE CEMENT COMPANY
Telephone:	0000000000
Mailing Name:	Not reported

1X RIVERSIDE CEMENT COMPANY (Continued) **S103947605**

Mailing Address:	P.O.BOX 158
Mailing City,St,Zip:	ORO GRANDE, CA 923680000
Gen County:	San Joaquin
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	T03
Tons:	.2293
Facility County:	San Joaquin

B92
NE
< 1/8
0.119 mi.
628 ft.

RIVERSIDE CEMENT COMPANY
2825 W WASHINGTON ST
STOCKTON, CA 95203

CA FID UST **S101592896**
SWEEPS UST **N/A**

Site 25 of 27 in cluster B

Relative:
Lower

Actual:
7 ft.

CA FID UST:

Facility ID:	39000613
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	P.O. BOX 158
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95203
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SWEEPS UST:

Status:	Not reported
Comp Number:	2588
Number:	Not reported
Board Of Equalization:	44-032226
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-002588-000001
Actv Date:	Not reported
Capacity:	1000
Tank Use:	UNKNOWN
Stg:	PRODUCT
Content:	Not reported
Number Of Tanks:	1

B93 NE < 1/8 0.119 mi. 628 ft. | **RIVERSIDE CEMENT COMPANY** | **UST** | **U004024712**
2825 W WASHINGTON ST | **N/A**
STOCKTON, CA 95203

Site 26 of 27 in cluster B

Relative: Lower

Actual: 7 ft.

UST SAN JOAQUIN:

Region:	SJ
Facility Id:	FA0005566
Mail Address:	2825 W WASHINGTON
Mail Care of:	RIVERSIDE CEMENT
Mail City,St,Zip:	STOCKTON, CA 95203
Tank Rec ID:	TA0502766
Tank Number:	1
Tank Status:	CLOSED
Tank Capacity:	1000
Product Type:	1A
Product Type Desc:	REGULAR UNLEADED
Program Element:	2380

B94 NE < 1/8 0.120 mi. 631 ft. | **RIVERSIDE CEMENT CO** | **HIST CORTESE** | **S104403509**
2825 WASHINGTON ST W | **LUST** | **N/A**
STOCKTON, CA 95203

Site 27 of 27 in cluster B

Relative: Lower

Actual: 7 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	39
Reg By:	LTNKA
Reg Id:	390765

LUST:

Region:	STATE
Global Id:	T0607700599
Latitude:	37.945603
Longitude:	-121.335583
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	1995-06-13 00:00:00
Lead Agency:	SAN JOAQUIN COUNTY LOP
Case Worker:	ML
Local Agency:	SAN JOAQUIN COUNTY LOP
RB Case Number:	390765
LOC Case Number:	2588
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0607700599
Contact Type:	Local Agency Caseworker
Contact Name:	MARGARET LAGORIO
Organization Name:	SAN JOAQUIN COUNTY LOP
Address:	600 E. MAIN
City:	STOCKTON

RIVERSIDE CEMENT CO (Continued) **S104403509**

Email: mlagorio@sjcehd.com
Phone Number: Not reported

Global Id: T0607700599
Contact Type: Regional Board Caseworker
Contact Name: JAMES BARTON
Organization Name: CENTRAL VALLEY RWQCB (REGION 5S)
Address: 11020 SUN CENTER DRIVE #200
City: RANCHO CORDOVA
Email: jbarton@waterboards.ca.gov
Phone Number: Not reported

LUST:
Global Id: T0607700599
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Discovery

Global Id: T0607700599
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Reported

LUST REG 5:
Region: 5
Status: Case Closed
Case Number: 390765
Case Type: Soil only
Substance: GASOLINE
Staff Initials: JLB
Lead Agency: Local
Program: LUST
MTBE Code: N/A

C95
ESE
1/8-1/4
0.128 mi.
676 ft.

UNOCAL #0950
2835 NAVY DR
STOCKTON, CA 95201

HIST CORTESE **S104548920**
LUST **N/A**
SLIC

Site 1 of 4 in cluster C

Relative:
Lower

Actual:
6 ft.

CORTESE:
Region: CORTESE
Facility County Code: 39
Reg By: LTNKA
Reg Id: 390712

LUST:
Region: STATE
Global Id: T0607700550
Latitude: 37.9403034
Longitude: -121.3325152
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 1994-10-13 00:00:00
Lead Agency: SAN JOAQUIN COUNTY LOP

UNOCAL #0950 (Continued) **S104548920**

Case Worker:	HAR
Local Agency:	SAN JOAQUIN COUNTY LOP
RB Case Number:	390712
LOC Case Number:	1205
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0607700550
Contact Type:	Regional Board Caseworker
Contact Name:	JAMES BARTON
Organization Name:	CENTRAL VALLEY RWQCB (REGION 5S)
Address:	11020 SUN CENTER DRIVE #200
City:	RANCHO CORDOVA
Email:	jbarton@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0607700550
Contact Type:	Local Agency Caseworker
Contact Name:	HARLIN KNOLL
Organization Name:	SAN JOAQUIN COUNTY LOP
Address:	600 E. MAIN STREET
City:	STOCKTON
Email:	hknoll@sjcehd.com
Phone Number:	Not reported

LUST:

Global Id:	T0607700550
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Discovery

Global Id:	T0607700550
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Reported

LUST REG 5:

Region:	5
Status:	Case Closed
Case Number:	390712
Case Type:	Soil only
Substance:	DIESEL
Staff Initials:	JLB
Lead Agency:	Local
Program:	LUST
MTBE Code:	N/A

SLIC:

Region:	5
Facility Status:	Not reported

UNOCAL #0950 (Continued) **S104548920**

Unit: Facility is a Spill or site
Pollutant: Not reported
Lead Agency: Not reported
Date Filed: / /
Report Date: / /
Date Added: Not reported
Date Closed: Not reported

C96 **STOCKTON TERMINAL** **HIST UST** **U001603224**
ESE **2835 NAVY DR** **N/A**
1/8-1/4 **STOCKTON, CA 95201**
0.128 mi.
676 ft. **Site 2 of 4 in cluster C**

Relative:
Lower

Actual:
6 ft.

HIST UST:
Region: STATE
Facility ID: 00000032416
Facility Type: Other
Other Type: MARKETING TERMINAL
Total Tanks: 0002
Contact Name: G.K. EDGAR
Telephone: 2099449115
Owner Name: UNION OIL COMPANY OF CALIF.
Owner Address: 461 S. BOYLSTON
Owner City,St,Zip: LOS ANGELES, CA 90017

Tank Num: 001
Container Num: 1
Year Installed: 1975
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: 1975
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

C97 **JEMCO UNION OIL** **UST** **U004024066**
ESE **2835 NAVY DR** **N/A**
1/8-1/4 **STOCKTON, CA 95206**
0.128 mi.
676 ft. **Site 3 of 4 in cluster C**

Relative:
Lower

Actual:
6 ft.

UST SAN JOAQUIN:
Region: SJ
Facility Id: FA0006061
Mail Address: 2835 NAVY DR
Mail Care of: JEMCO UNION OIL
Mail City,St,Zip: STOCKTON, CA 95206

JEMCO UNION OIL (Continued) **U004024066**

Tank Rec ID:	TA0504056
Tank Number:	1
Tank Status:	CLOSED
Tank Capacity:	20000
Product Type:	1A
Product Type Desc:	REGULAR UNLEADED
Program Element:	2380

Tank Rec ID:	TA0504057
Tank Number:	2
Tank Status:	CLOSED
Tank Capacity:	10000
Product Type:	1A
Product Type Desc:	REGULAR UNLEADED
Program Element:	2380

C98 **UNOCAL** **CA FID UST** **S101592876**
ESE **2835 NAVY DR** **SWEEPS UST** **N/A**
1/8-1/4 **STOCKTON, CA 95206**
0.128 mi.
676 ft. **Site 4 of 4 in cluster C**

Relative:
Lower

Actual:
6 ft.

CA FID UST:

Facility ID:	39000568
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2099449115
Mail To:	Not reported
Mailing Address:	461 S BOYLSTON
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95206
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SWEEPS UST:

Status:	Not reported
Comp Number:	1205
Number:	Not reported
Board Of Equalization:	44-000051
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001205-000001
Actv Date:	Not reported
Capacity:	20000
Tank Use:	M.V. FUEL
Stg:	PRODUCT

UNOCAL (Continued) **S101592876**

Content:	DIESEL
Number Of Tanks:	2
Status:	Not reported
Comp Number:	1205
Number:	Not reported
Board Of Equalization:	44-000051
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001205-000002
Actv Date:	Not reported
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	DIESEL
Number Of Tanks:	Not reported

D99 **TIME OIL** **EMI** **S106841119**
North **3000 NAVY DRIVE** **N/A**
1/8-1/4 **STOCKTON, CA 95203**
0.153 mi.
810 ft. **Site 1 of 4 in cluster D**

Relative:
Higher

Actual:
9 ft.

EMI:

Year:	1987
County Code:	39
Air Basin:	SJV
Facility ID:	77
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	26
Reactive Organic Gases Tons/Yr:	25
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	1990
County Code:	39
Air Basin:	SJV
Facility ID:	77
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	33
Reactive Organic Gases Tons/Yr:	33
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

TIME OIL (Continued) **S106841119**

Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

D100
North
1/8-1/4
0.153 mi.
810 ft.

NAVY DR TO MCCLOY SECURITY REROUTE PACKAGE D **NPDES** **S109451693**
3160 NAVY DR **N/A**
STOCKTON, CA 95203

Site 2 of 4 in cluster D

Relative:
Higher

Actual:
9 ft.

NPDES:

Npdes Number:	CAS000002
Facility Status:	Terminated
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39C347364
Program Type:	Construction
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	6/4/2007 3:26:00 PM
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	11/19/2007
Discharge Name:	Port of Stockton
Discharge Address:	2201 W Washington St
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95201

D101
North
1/8-1/4
0.179 mi.
946 ft.

CHMIRS **S100220973**
NAVY/WASHINGTON **N/A**
STOCKTON, CA 95204

Site 3 of 4 in cluster D

Relative:
Lower

Actual:
6 ft.

CHMIRS:

OES Incident Number:	9014637
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	23-DEC-90
Date Completed:	**23-DEC-90**
Property Use:	600
Agency Id Number:	39065
Agency Incident Number:	40280
Time Notified:	2156
Time Completed:	2245
Surrounding Area:	600
Estimated Temperature:	37
Property Management:	P
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported

(Continued) **S100220973**

Special Studies 6:	Not reported
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	0
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	CAPT. HALSCY
Report Date:	23-DEC-90
Comments:	Y
Facility Telephone:	209 944-8272
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	Not reported
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	24-JUN-91
Substance:	Not reported
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
Description:	Not reported

D102 North 1/8-1/4 0.179 mi. 946 ft. | **NAVY DRIVE NE SIDE OF RD 100 YDS BEFORE THE COE-GENERATION P**
NAVY DRIVE NE SIDE OF RD 100 YDS BEFORE THE COE-GENERATION P
STOCKTOWN, CA

Site 4 of 4 in cluster D

ERNS | **91237805**
N/A

Relative: Lower

Actual: 6 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

E103 NE 1/8-1/4 0.180 mi. 951 ft. | **BAY SULFUR**
2717 W. WASHINGTON
STOCKTON, CA 95201

Site 1 of 27 in cluster E

LDS | **S109287822**
N/A

Relative: Lower

Actual: 7 ft.

LDS:

Global Id:	L10005663437
Latitude:	37.944296
Longitude:	-121.334115
Case Type:	Land Disposal Site
Status:	Open
Status Date:	1965-01-01 00:00:00
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Caseworker:	HFH
Local Agency:	Not reported
RB Case Number:	5B392103N01
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

E104 NE 1/8-1/4 0.181 mi. 957 ft. | **MARTIN OPERATING PARTNERSHIP**
2717 WEST WASHINGTON STREET
STOCKTON, CA 95203

Site 2 of 27 in cluster E

WDS LDS EMI | **S105936675**
N/A

Relative: Lower

Actual: 7 ft.

CA WDS:

Facility ID:	5S 39I013931
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2099433414
Facility Contact:	DAVID WILKEY
Agency Name:	BAY SULFUR COMPANY
Agency Address:	PO BOX 982

MARTIN OPERATING PARTNERSHIP (Continued) **S105936675**

Agency City,St,Zip:	STOCKTON 95201
Agency Contact:	DAVE WILKEY
Agency Telephone:	Not reported
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

LDS:

Global Id:	T10000001236
Latitude:	37.94571
Longitude:	-121.33325
Case Type:	Land Disposal Site
Status:	Open - Referred
Status Date:	2009-07-01 00:00:00
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Caseworker:	MLB
Local Agency:	Not reported
RB Case Number:	5B39NC00161
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

EMI:

Year:	2000
County Code:	39
Air Basin:	SJV
Facility ID:	1153
Air District Name:	SJU
SIC Code:	2879
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD

MARTIN OPERATING PARTNERSHIP (Continued) **S105936675**

Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	2
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
County Code:	39
Air Basin:	SJV
Facility ID:	1153
Air District Name:	SJU
SIC Code:	2879
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	B
Total Organic Hydrocarbon Gases Tons/Yr:	116
Reactive Organic Gases Tons/Yr:	98
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	6
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	39
Air Basin:	SJV
Facility ID:	1153
Air District Name:	SJU
SIC Code:	2879
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	136
Reactive Organic Gases Tons/Yr:	116
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	6
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	39
Air Basin:	SJV
Facility ID:	1153
Air District Name:	SJU
SIC Code:	2879
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12.40026771
Reactive Organic Gases Tons/Yr:	10.50429065
Carbon Monoxide Emissions Tons/Yr:	0.0247
NOX - Oxides of Nitrogen Tons/Yr:	5.182

MARTIN OPERATING PARTNERSHIP (Continued) **S105936675**

SOX - Oxides of Sulphur Tons/Yr:	0.73765
Particulate Matter Tons/Yr:	0.0052
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.0052

Year:	2005
County Code:	39
Air Basin:	SJV
Facility ID:	1153
Air District Name:	SJU
SIC Code:	2879
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12.40026770538243626
Reactive Organic Gases Tons/Yr:	10.50429065
Carbon Monoxide Emissions Tons/Yr:	.0247
NOX - Oxides of Nitrogen Tons/Yr:	5.182
SOX - Oxides of Sulphur Tons/Yr:	.73765
Particulate Matter Tons/Yr:	.0052
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.0052

Year:	2006
County Code:	39
Air Basin:	SJV
Facility ID:	1153
Air District Name:	SJU
SIC Code:	2879
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12.40361469826230294
Reactive Organic Gases Tons/Yr:	10.5065
Carbon Monoxide Emissions Tons/Yr:	.0247
NOX - Oxides of Nitrogen Tons/Yr:	5.182
SOX - Oxides of Sulphur Tons/Yr:	.73765
Particulate Matter Tons/Yr:	.0052
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.0052

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	1153
Air District Name:	SJU
SIC Code:	2879
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12.40361469826230294
Reactive Organic Gases Tons/Yr:	10.5065
Carbon Monoxide Emissions Tons/Yr:	.0247
NOX - Oxides of Nitrogen Tons/Yr:	5.182
SOX - Oxides of Sulphur Tons/Yr:	.73765
Particulate Matter Tons/Yr:	.0052
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.0052

Year:	2007
County Code:	39

MARTIN OPERATING PARTNERSHIP (Continued) **S105936675**

Air Basin:	SJV
Facility ID:	1153
Air District Name:	SJU
SIC Code:	2879
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12.40361469826230294
Reactive Organic Gases Tons/Yr:	10.5065
Carbon Monoxide Emissions Tons/Yr:	.0247
NOX - Oxides of Nitrogen Tons/Yr:	5.182
SOX - Oxides of Sulphur Tons/Yr:	.73765
Particulate Matter Tons/Yr:	.0052
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.0052

E105 **BAY SULFUR COMPANY** **FINDS** **1008238828**
NE **2717 W. WASHINGTON STREET** **N/A**
1/8-1/4 **STOCKTON, CA 95203**
0.181 mi.
957 ft. **Site 3 of 27 in cluster E**

Relative:
Lower

Actual:
7 ft.

FINDS:

Registry ID: 110021290306

Environmental Interest/Information System
The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

E106 **2717 W. WASHINGTON** **ERNS** **93327936**
NE **2717 W. WASHINGTON** **N/A**
1/8-1/4 **STOCKTON, CA 95203**
0.181 mi.
957 ft. **Site 4 of 27 in cluster E**

Relative:
Lower

Actual:
7 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

E107 **BAY SULFUR COMPANY** **NPDES** **S108198841**
NE **2717 W WASHINGTON ST** **HAZNET** **N/A**
1/8-1/4 **STOCKTON, CA 95203**
0.181 mi.
957 ft. **Site 5 of 27 in cluster E**

Relative:
Lower

Actual:
7 ft.

NPDES:

Npdes Number:	CAS000002
Facility Status:	Terminated
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not Available

BAY SULFUR COMPANY (Continued) **S108198841**

WDID:	5S39C353454
Program Type:	Construction
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	9/22/2008 4:56:00 PM
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	6/17/2009
Discharge Name:	Martin Operating Partnership LP
Discharge Address:	PO Box 982
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95201

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I019788
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	9/14/2005
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Martin Operating Partnership LP
Discharge Address:	PO Box 191
Discharge City:	Kilgore
Discharge State:	Te
Discharge Zip:	75663

HAZNET:

Year:	2008
Gepaid:	CAL000077953
Contact:	DAVID WILKEY
Telephone:	2099433414
Mailing Name:	Not reported
Mailing Address:	PO BOX 982
Mailing City,St,Zip:	STOCKTON, CA 952010000
Gen County:	San Joaquin
TSD EPA ID:	CAD044003556
TSD County:	Yolo
Waste Category:	Waste oil and mixed oil
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	1.14
Facility County:	San Joaquin

Year:	2005
Gepaid:	CAL000077953
Contact:	DAVID WILKEY
Telephone:	2099433414
Mailing Name:	Not reported
Mailing Address:	PO BOX 982
Mailing City,St,Zip:	STOCKTON, CA 952010000
Gen County:	San Joaquin

BAY SULFUR COMPANY (Continued) **S108198841**

TSD EPA ID:	CAD980887418
TSD County:	Alameda
Waste Category:	Unspecified oil-containing waste
Disposal Method:	R01
Tons:	15.42
Facility County:	Not reported

E108
NE
1/8-1/4
0.190 mi.
1002 ft.

BP WEST COAST PRODUCTS LLC
2700 W WASHINGTON ST
STOCKTON, CA 95203

WDS **S103648287**
NPDES **N/A**
HAZNET
EMI

Site 6 of 27 in cluster E

Relative:
Lower

Actual:
7 ft.

CA WDS:

Facility ID:	5S 39I017095
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2094664408
Facility Contact:	SCOTT MURDOCK
Agency Name:	BP WEST COAST PRODUCTS
Agency Address:	2700 WASHINGTON ST
Agency City,St,Zip:	STOCKTON 95203
Agency Contact:	RALPH MORAN
Agency Telephone:	7146705126
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

BP WEST COAST PRODUCTS LLC (Continued) **S103648287**

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I017095
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	2/22/2002
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	BP West Coast Product LLC
Discharge Address:	2700 W Washington St
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95203

HAZNET:

Year:	2009
Gepaid:	CAD000633032
Contact:	PAUL SKRYJA ENVIRONMENTAL COOR.
Telephone:	5102314704
Mailing Name:	Not reported
Mailing Address:	1306 CANAL BLVD
Mailing City,St,Zip:	RICHMOND, CA 948040000
Gen County:	San Joaquin
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	12.24
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAD000633032
Contact:	PAUL SKRYJA ENVIRONMENTAL COOR.
Telephone:	5102314704
Mailing Name:	Not reported
Mailing Address:	1306 CANAL BLVD
Mailing City,St,Zip:	RICHMOND, CA 948040000
Gen County:	San Joaquin
TSD EPA ID:	MOD981505555
TSD County:	99
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	1.29
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAD000633032
Contact:	PAUL SKRYJA ENVIRONMENTAL COOR.

BP WEST COAST PRODUCTS LLC (Continued) **S103648287**

Telephone: 5102314704
Mailing Name: Not reported
Mailing Address: 1306 CANAL BLVD
Mailing City,St,Zip: RICHMOND, CA 948040000
Gen County: San Joaquin
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Unspecified aqueous solution
Disposal Method: OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons: 107.8896
Facility County: San Joaquin

Year: 2008
Gepaid: CAD000633032
Contact: DEBRA PORTELLO-HSE ADVISOR
Telephone: 5102314704
Mailing Name: BP RICHMOND TERMINAL
Mailing Address: 1306 CANAL BLVD
Mailing City,St,Zip: RICHMOND, CA 948040000
Gen County: San Joaquin
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Off-specification, aged or surplus inorganics
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.14595
Facility County: San Joaquin

Year: 2008
Gepaid: CAD000633032
Contact: DEBRA PORTELLO-HSE ADVISOR
Telephone: 5102314704
Mailing Name: BP RICHMOND TERMINAL
Mailing Address: 1306 CANAL BLVD
Mailing City,St,Zip: RICHMOND, CA 948040000
Gen County: San Joaquin
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Unspecified solvent mixture
Disposal Method: OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons: 18.765
Facility County: San Joaquin

Click this hyperlink while viewing on your computer to access
37 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:
Year: 1987
County Code: 39
Air Basin: SJV
Facility ID: 70
Air District Name: SJU
SIC Code: 5171
Air District Name: SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System: Not reported

BP WEST COAST PRODUCTS LLC (Continued) **S103648287**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	32
Reactive Organic Gases Tons/Yr:	32
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	39
Air Basin:	SJV
Facility ID:	70
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	61
Reactive Organic Gases Tons/Yr:	61
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1993
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	5
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

BP WEST COAST PRODUCTS LLC (Continued) **S103648287**

Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

E109
NE
1/8-1/4
0.190 mi.
1002 ft.

ARCO PRODUCTS COMPANY **EMI** **S105936780**
2700 W WASHINGTON STREET **N/A**
STOCKTON, CA

Site 7 of 27 in cluster E

Relative:
Lower

Actual:
7 ft.

EMI:

Year:	1996
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	23
Reactive Organic Gases Tons/Yr:	22
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

ARCO PRODUCTS COMPANY (Continued) **S105936780**

Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	25
Reactive Organic Gases Tons/Yr:	24
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	72
Reactive Organic Gases Tons/Yr:	66
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	39
Air Basin:	SJV

ARCO PRODUCTS COMPANY (Continued) **S105936780**

Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	11
Reactive Organic Gases Tons/Yr:	11
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2003
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8.090422544
Reactive Organic Gases Tons/Yr:	7.706748073
Carbon Monoxide Emissions Tons/Yr:	0.70763
NOX - Oxides of Nitrogen Tons/Yr:	1.4087882
SOX - Oxides of Sulphur Tons/Yr:	5.8E-06
Particulate Matter Tons/Yr:	6.2E-06
Part. Matter 10 Micrometers & Smllr Tons/Yr:	6.0512E-06

Year:	2005
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

ARCO PRODUCTS COMPANY (Continued) **S105936780**

Total Organic Hydrocarbon Gases Tons/Yr:	8.598935920228504775
Reactive Organic Gases Tons/Yr:	7.912095939557338637
Carbon Monoxide Emissions Tons/Yr:	.7043689999995753169
NOX - Oxides of Nitrogen Tons/Yr:	1.408788199998028576
SOX - Oxides of Sulphur Tons/Yr:	.0000057999998703599
Particulate Matter Tons/Yr:	.0000063524588744049
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.0000061999998614192

Year:	2006
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8.806550542138572404
Reactive Organic Gases Tons/Yr:	8.550961400007040984
Carbon Monoxide Emissions Tons/Yr:	.5764047499998938292
NOX - Oxides of Nitrogen Tons/Yr:	1.152822049999507144
SOX - Oxides of Sulphur Tons/Yr:	.0000014499999675899
Particulate Matter Tons/Yr:	.0000015881147186012
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.0000015499999653548

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7.368975081873358620
Reactive Organic Gases Tons/Yr:	6.886539499145768570
Carbon Monoxide Emissions Tons/Yr:	.5677925000007078052
NOX - Oxides of Nitrogen Tons/Yr:	1.135710500003285706
SOX - Oxides of Sulphur Tons/Yr:	.0000145000002160668
Particulate Matter Tons/Yr:	.0000158811477776311
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.000015500000230968

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	2369
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7.534413259432217355
Reactive Organic Gases Tons/Yr:	7.078176467645768570
Carbon Monoxide Emissions Tons/Yr:	.5343875000007078052
NOX - Oxides of Nitrogen Tons/Yr:	1.068900500003285706
SOX - Oxides of Sulphur Tons/Yr:	.0000145000002160668
Particulate Matter Tons/Yr:	.0000158811477776311

ARCO PRODUCTS COMPANY (Continued) **S105936780**

Part. Matter 10 Micrometers & Smllr Tons/Yr: .000015500000230968

E110 **CHMIRS** **S105556767**
NE **2700 W. WASHINGTON** **N/A**
1/8-1/4 **STOCKTON, CA 95203**
0.190 mi.
1002 ft. **Site 8 of 27 in cluster E**

Relative:
Lower

Actual:
7 ft.

CHMIRS:

OES Incident Number:	'08-7879
OES notification:	11/1/2008 10:46:19 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Service Station
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	2155
Year:	2008
Agency:	Stockton Fire Department

(Continued) **S105556767**

Incident Date:	11/1/2008
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	3% AFFF
Quantity Released:	1350
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	The onsite fire suppression system at an ARCO service station leaked it's supply of AFFF foam into a holding tank on site.
OES Incident Number:	97-0305
OES notification:	1/22/199707:44:19 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported

(Continued) **S105556767**

Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1997
Agency:	Arco Product Company
Incident Date:	1/22/199712:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Refinery
E Date:	Not reported
Substance:	Oily Water
Quantity Released:	Not reported
BBLS:	1
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	The oily water holding tank overflowed due to heavy rains. All was contained on property withing tank walls.

E111 **BP WEST COAST PRO-ARCO STK TERM** **AST** **A100339734**
NE **2700 W WASHINGTON** **N/A**
1/8-1/4 **STOCKTON, CA 95203**
0.190 mi.
1002 ft. **Site 9 of 27 in cluster E**

Relative:
Lower

Actual:
7 ft.

AST:

Owner:	BP WEST COAST PRODUCTS LLC
Total Gallons:	2,176,880
Certified Unified Program Agencies:	San Joaquin

E112
NE
1/8-1/4
0.190 mi.
1002 ft.

BP WEST COAST PRO-ARCO STK TERM — **UST** — **U004023291**
2700 W WASHINGTON ST — **N/A**
STOCKTON, CA 95203

Site 10 of 27 in cluster E

Relative:
Lower

Actual:
7 ft.

UST SAN JOAQUIN:

Region:	SJ
Facility Id:	FA0007644
Mail Address:	2700 W WASHINGTON ST
Mail Care of:	Not reported
Mail City,St,Zip:	STOCKTON, CA 95203
Tank Rec ID:	TA0506819
Tank Number:	1
Tank Status:	INACTIVE
Tank Capacity:	500
Product Type:	99
Product Type Desc:	OTHER
Program Element:	2380
Tank Rec ID:	TA0515049
Tank Number:	2
Tank Status:	INACTIVE
Tank Capacity:	10000
Product Type:	99
Product Type Desc:	OTHER
Program Element:	2380

E113
NE
1/8-1/4
0.190 mi.
1002 ft.

2700 W WASHINGTON STREET — **ERNS** — **2007328389**
2700 W WASHINGTON STREET — **N/A**
STOCKTON, CA 95203

Site 11 of 27 in cluster E

Relative:
Lower

Actual:
7 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

E114
NE
1/8-1/4
0.190 mi.
1002 ft.

2700 WEST WASHINGTON ST. — **ERNS** — **2004738261**
2700 WEST WASHINGTON ST. — **N/A**
STOCKTON, CA

Site 12 of 27 in cluster E

Relative:
Lower

Actual:
7 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

E115 **CHMIRS** **S108406306**
NE **2700 WEST WASHINGTON ST.** **N/A**
1/8-1/4 **STOCKTON, CA**
0.190 mi.
1002 ft. **Site 13 of 27 in cluster E**

Relative:
Lower

Actual:
7 ft.

CHMIRS:

OES Incident Number:	05-6889
OES notification:	11/30/200509:12:19 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	British Petroleum
Incident Date:	11/30/200512:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported

(Continued) **S108406306**

Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Ansulite 3X3 (Fire Foam)
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	1,500
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Unknown system failure resulting in accidental release. All the material is contained on the asphalt at the terminal.

E116 **2700 WEST WASHINGTON ST.** **ERNS** **2009922482**
NE **2700 WEST WASHINGTON ST.** **N/A**
1/8-1/4 **STOCKTON, CA 95203**
0.190 mi.
1002 ft. **Site 14 of 27 in cluster E**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
7 ft.

E117 **CHMIRS** **S108405722**
NE **2700 WEST WASHINGTON ST** **N/A**
1/8-1/4 **STOCKTON, CA 95203**
0.190 mi.
1002 ft. **Site 15 of 27 in cluster E**

Relative:
Lower

Actual:
7 ft.

CHMIRS:

OES Incident Number:	05-6144
OES notification:	10/24/200508:14:27 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported

(Continued) **S108405722**

Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	BP West Coast Products
Incident Date:	10/24/200512:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Gasoline Additive
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	1,000-1,500
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Substance was released due to a gage breaking. Substance released to

(Continued) **S108405722**

a storage vault (Secondary Containment area). Vacuum truck is enroute. Note: incident location is a gasoline loading facility.

E118
NE
1/8-1/4
0.190 mi.
1002 ft.

STOCKTON TERMINAL
2700 W WASHINGTON
STOCKTON, CA 95203

FINDS **1009602481**
N/A

Site 16 of 27 in cluster E

Relative:
Lower

Actual:
7 ft.

FINDS:

Registry ID: 110032910152

Environmental Interest/Information System
US Facility Response Plan (FRP) contains plans for responding, to the maximum extent practical, to worst case discharges of oil.

E119
NE
1/8-1/4
0.190 mi.
1002 ft.

BP WEST COAST PRODUCTS LLC - BP STOCKTON
2700 W. WASHINGTON
STOCKTON, CA 95203

RCRA-LQG **1000153729**
FINDS **CAD000633032**

Site 17 of 27 in cluster E

Relative:
Lower

Actual:
7 ft.

RCRA-LQG:

Date form received by agency:	02/24/2010
Facility name:	BP WEST COAST PRODUCTS LLC - BP STOCKTON
Facility address:	2700 W. WASHINGTON STOCKTON, CA 952032941
EPA ID:	CAD000633032
Mailing address:	W. WASHINGTON STOCKTON, CA 952032941
Contact:	PAULA J SKYJA
Contact address:	CANAL BLVD RICHMOND, CA 94804
Contact country:	Not reported
Contact telephone:	(510) 231-4704
Contact email:	PAULA.SKRYJA@BP.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	ATLANTIC RICHFIELD COMPANY
Owner/operator address:	NOT REQUIRED

BP WEST COAST PRODUCTS LLC - BP STOCKTON (Continued) **1000153729**

	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	BP WEST COAST PRODUCTS LLC
Owner/operator address:	CENTER POINT DR
	LA PALMA, CA 90623
Owner/operator country:	Not reported
Owner/operator telephone:	(510) 231-4704
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

Owner/operator name:	BP PRODUCTS NORTH AMERICA INC
Owner/operator address:	Not reported
	90623
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

BP WEST COAST PRODUCTS LLC - BP STOCKTON (Continued) **1000153729**

Date form received by agency: 02/29/2008
Facility name: BP WEST COAST PRODUCTS LLC - BP STOCKTON
Site name: BP WEST COAST PRODUCTS LLC (BP STOCKTON)
Classification: Large Quantity Generator

Date form received by agency: 03/01/2006
Facility name: BP WEST COAST PRODUCTS LLC - BP STOCKTON
Classification: Large Quantity Generator

Date form received by agency: 02/26/2004
Facility name: BP WEST COAST PRODUCTS LLC - BP STOCKTON
Site name: BP STOCKTON
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: BP WEST COAST PRODUCTS LLC - BP STOCKTON
Site name: ARCO PRODUCTS COMPANY
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: BP WEST COAST PRODUCTS LLC - BP STOCKTON
Site name: ATLANTIC RICHFIELD CO STOCKTON TERM
Classification: Large Quantity Generator

Date form received by agency: 02/29/1996
Facility name: BP WEST COAST PRODUCTS LLC - BP STOCKTON
Site name: ARCO PRODUCTS COMPANY-STOCKTON TERMINAL
Classification: Large Quantity Generator

Date form received by agency: 03/25/1994
Facility name: BP WEST COAST PRODUCTS LLC - BP STOCKTON
Site name: ARCO PRODUCTS CO STOCKTON TERMINAL
Classification: Large Quantity Generator

Date form received by agency: 02/28/1992
Facility name: BP WEST COAST PRODUCTS LLC - BP STOCKTON
Site name: ARCO PETROLEUM PRODUCTS CO STOCKTON TERM
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Facility name: BP WEST COAST PRODUCTS LLC - BP STOCKTON
Site name: ATLANTIC RICHFIELD CO STOCKTON TERM
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D007
Waste name: CHROMIUM

BP WEST COAST PRODUCTS LLC - BP STOCKTON (Continued) **1000153729**

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D018
Waste name: BENZENE

Biennial Reports:

Last Biennial Reporting Year: 2011

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 5273

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 3922

Waste code: D008
Waste name: LEAD
Amount (Lbs): 4582

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 1627

Waste code: D018
Waste name: BENZENE
Amount (Lbs): 185073

Violation Status: No violations found

FINDS:

Registry ID: 110000484823

Environmental Interest/Information System
AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V

BP WEST COAST PRODUCTS LLC - BP STOCKTON (Continued) **1000153729**

of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

E120
NE
1/8-1/4
0.190 mi.
1004 ft.

ARCO PRODUCTS - STOCKTON FACILITY
2700 WASHINGTON ST W
STOCKTON, CA

SLIC **S106230483**
N/A

Site 18 of 27 in cluster E

Relative:
Lower

Actual:
7 ft.

SLIC:

Region:	5
Facility Status:	Remediation Underway
Unit:	Facility is a Spill or site
Pollutant:	TPH-g, d, BTEX, MTBE
Lead Agency:	DLL
Date Filed:	/ /
Report Date:	/ /
Date Added:	Not reported
Date Closed:	Not reported

E121
NE
1/8-1/4
0.190 mi.
1004 ft.

STOCKTON TERMINALS TECHNICAL COMMITTEE - ARCO PRODUCTS CO. -
2700 WASHINGTON STREET
STOCKTON, CA

SLIC **S106484253**
N/A

Site 19 of 27 in cluster E

Relative:
Lower

Actual:
7 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	1998-01-01 00:00:00
Global Id:	SL373563628
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.9775767786594
Longitude:	-121.304493668302
Case Type:	Cleanup Program Site
Case Worker:	KAS
Local Agency:	Not reported
RB Case Number:	SL373563628
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	* Petroleum - Automotive gasolines
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

E122
NE
1/8-1/4
0.215 mi.
1136 ft.

HJ BAKER & BRO INC
65 STORK ROAD
STOCKTON, CA 95203

NPDES **S109426969**
HAZNET **N/A**

Site 20 of 27 in cluster E

Relative:
Lower

Actual:
7 ft.

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available

HJ BAKER & BRO INC (Continued) **S109426969**

WDID:	5S39I019467
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	5/5/2005
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	HJ Baker & Bro
Discharge Address:	PO Box 2089
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95201

HAZNET:

Year:	2009
Gepaid:	CAL000293011
Contact:	CHUCK DEJONG
Telephone:	2099430478
Mailing Name:	Not reported
Mailing Address:	PO BOX 2089
Mailing City,St,Zip:	STOCKTON, CA 952012089
Gen County:	San Joaquin
TSD EPA ID:	CAD980884183
TSD County:	Sacramento
Waste Category:	Unspecified oil-containing waste
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.22935
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAL000293011
Contact:	CHUCK DEJONG
Telephone:	2099430478
Mailing Name:	Not reported
Mailing Address:	PO BOX 2089
Mailing City,St,Zip:	STOCKTON, CA 952012089
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Other organic solids
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.3
Facility County:	San Joaquin

Year:	2008
Gepaid:	CAL000293011
Contact:	CHUCK DEJONG
Telephone:	2099430478
Mailing Name:	Not reported
Mailing Address:	PO BOX 2089
Mailing City,St,Zip:	STOCKTON, CA 952012089
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Other organic solids
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO

HJ BAKER & BRO INC (Continued) **S109426969**

INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons: 0.275
Facility County: San Joaquin

Year: 2007
Gepaid: CAL000293011
Contact: CHUCK DEJONG
Telephone: 2099430478
Mailing Name: Not reported
Mailing Address: PO BOX 2089
Mailing City,St,Zip: STOCKTON, CA 952012089
Gen County: San Joaquin
TSD EPA ID: CAD044003556
TSD County: Yolo
Waste Category: Unspecified organic liquid mixture
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.03
Facility County: San Joaquin

Year: 2007
Gepaid: CAL000293011
Contact: CHUCK DEJONG
Telephone: 2099430478
Mailing Name: Not reported
Mailing Address: PO BOX 2089
Mailing City,St,Zip: STOCKTON, CA 952012089
Gen County: San Joaquin
TSD EPA ID: CAD980884183
TSD County: Sacramento
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.06
Facility County: San Joaquin

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

E123 **H.J. BAKER & BROS INC.** **EMI** **S107621082**
NE **65 STORK ROAD** **N/A**
1/8-1/4 **STOCKTON, CA 95203**
0.215 mi.
1136 ft. **Site 21 of 27 in cluster E**

Relative:
Lower

Actual:
7 ft.

EMI:
Year: 2004
County Code: 39
Air Basin: SJV
Facility ID: 90
Air District Name: SJU
SIC Code: 2819
Air District Name: SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0

H.J. BAKER & BROS INC. (Continued) **S107621082**

NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0.78
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2005
County Code:	39
Air Basin:	SJV
Facility ID:	90
Air District Name:	SJU
SIC Code:	2819
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	.78
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2006
County Code:	39
Air Basin:	SJV
Facility ID:	90
Air District Name:	SJU
SIC Code:	2819
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	.78
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

E124 **DB WESTERN** **AST** **A100339635**
NE **2650 W WASHINGTON** **N/A**
1/8-1/4 **STOCKTON, CA 95203**
0.220 mi.
1160 ft. **Site 22 of 27 in cluster E**

Relative:
Lower

Actual:
6 ft.

AST:

Owner:	DENNIS BEETHAN
Total Gallons:	5,000
Certified Unified Program Agencies:	San Joaquin

E125
NE
1/8-1/4
0.220 mi.
1160 ft.

D B WESTERN INC CALIFORNIA
2650 W WASHINGTON
STOCKTON, CA 95203

Site 23 of 27 in cluster E

NPDES **S109441198**
N/A

Relative:
Lower

Actual:
6 ft.

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I020122
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	3/10/2006 8:54:00 AM
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	DB Western Inc CA
Discharge Address:	2650 W Washington
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95203

E126
NE
1/8-1/4
0.220 mi.
1160 ft.

D.B. WESTERN
2650 WEST WASHINGTON ST.
STOCKTON, CA 95201

Site 24 of 27 in cluster E

FINDS **1011426102**
N/A

Relative:
Lower

Actual:
6 ft.

FINDS:

Registry ID: 110035769727

Environmental Interest/Information System

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

E127 NE 1/8-1/4 0.220 mi. 1160 ft. | **DB WESTERN INC CA**
2650 W WASHINGTON ST
STOCKTON, CA 95201

Site 25 of 27 in cluster E

NPDES **S109441346**
EMI **N/A**

Relative: Lower

Actual: 6 ft.

NPDES:

Npdes Number:	CAS000002
Facility Status:	Terminated
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39C331325
Program Type:	Construction
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	12/7/2004
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	6/29/2010
Discharge Name:	DB Western Inc CA
Discharge Address:	2650 W Washington
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95203

EMI:

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	7334
Air District Name:	SJU
SIC Code:	2821
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	7334
Air District Name:	SJU
SIC Code:	2821
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0106170061271600663
Reactive Organic Gases Tons/Yr:	.00448249998688698
Carbon Monoxide Emissions Tons/Yr:	.0300734999120235
NOX - Oxides of Nitrogen Tons/Yr:	.0148329999566078
SOX - Oxides of Sulphur Tons/Yr:	.00232274999320507

DB WESTERN INC CA (Continued) **S109441346**

Particulate Matter Tons/Yr: .00619399998188019
Part. Matter 10 Micrometers & Smllr Tons/Yr: .00619399998188019

E128 **CHMIRS** **S105630593**
NE **2717 W. WASHINGTON (BAY SULPHUR CO.)** **N/A**
1/8-1/4 **STOCKTON, CA**
0.248 mi.
1312 ft. **Site 26 of 27 in cluster E**

Relative:
Lower

Actual:
7 ft.

CHMIRS:

OES Incident Number:	28242
OES notification:	Not reported
OES Date:	6/10/1993
OES Time:	11:00:00 PM
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	YES
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	BAY SULPHUR CO.
Containment:	Not reported
What Happened:	Not reported
Type:	CHEMICAL
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1993

(Continued) **S105630593**

Agency:	STOCKTON F.D.
Incident Date:	Not reported
Admin Agency:	Not reported
Amount:	100 LBS
Contained:	NO
Site Type:	Not reported
E Date:	Not reported
Substance:	SULPHUR
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	UNKNOWN
Number of Injuries:	YES
Number of Fatalities:	UNKNOWN
Description:	SULPHUR CAUGHT ON FIRE CAUSE UNKNOWN TO EMPLOYEES FROM NEIGHBORING BUSINESS TAKEN TO HOSPITAL FOR A CHECK UP.

E129 **BAY SULFUR** **WMUDS/SWAT** **S104156524**
NE **2717 W. WASHINGTON** **N/A**
1/8-1/4 **STOCKTON CA, CA 95201**
0.248 mi.
1312 ft. **Site 27 of 27 in cluster E**

Relative:
Lower

Actual:
7 ft.

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	Process Waste (Waste produced as part of the industrial/manufacturing process)
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Private
Agency Name:	BAY SULFUR COMPANY
Agency Department:	Not reported
Agency Address:	PO BOX 982
Agency City,St,Zip:	STOCKTON CA 95201

BAY SULFUR (Continued) **S104156524**

Agency Contact:	DAVE WILKEY
Agency Telephone:	2099433414
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	Not reported
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	5S
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	2819
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	False
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Not reported
Sub Chapter 15:	True
Regional Board Project Officer:	SER
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Historical - Any regulated facility for which the Regional Board has rescinded all WDRs or consciously allowed an NPDES permit to expire.
Self-Monitoring Rept. Frequency:	No Reporting Requirements
Waste Discharge System ID:	5B392103N01
Solid Waste Information ID:	Not reported

F130 **THE LEARNER COMPANY** **WDS** **U001603309**
SE **2711 NAVY DR** **NPDES** **N/A**
1/4-1/2 **STOCKTON, CA 95206** **HIST CORTESE**
0.288 mi. **LUST**
1520 ft. **Site 1 of 6 in cluster F** **HIST UST**
SWEEPS UST
Relative: **HAZNET**
Lower **EMI**

Actual:
6 ft.

CA WDS:

Facility ID:	5S 39I001855
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

THE LEARNER COMPANY (Continued) **U001603309**

NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2099483498
Facility Contact:	JACK P HECHT
Agency Name:	LEARNER CO THE
Agency Address:	2711 Navy Dr
Agency City,St,Zip:	Stockton 952061192
Agency Contact:	JACK P HECHT
Agency Telephone:	2099483498
Agency Type:	Private
SIC Code:	5093
SIC Code 2:	Not reported
Primary Waste:	Stormwater Runoff
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The facility is not a POTW.
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

NPDES:

Npdes Number:	CAS000002
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39C354402
Program Type:	Construction
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	1/15/2009 2:54:00 PM
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	The Learner Company
Discharge Address:	222 North Poinsettia Ave
Discharge City:	Manhattan Beach
Discharge State:	Ca

THE LEARNER COMPANY (Continued) **U001603309**

Discharge Zip:	90266
Npdes Number:	CAS00001
Facility Status:	Terminated
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I001855
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	3/30/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	9/23/2010
Discharge Name:	Learner Co
Discharge Address:	222 N Poinsettia
Discharge City:	Manhattan Beach
Discharge State:	Ca
Discharge Zip:	90266

CORTESE:

Region:	CORTESE
Facility County Code:	39
Reg By:	LTNKA
Reg Id:	390925

LUST:

Region:	STATE
Global Id:	T0607700747
Latitude:	37.9385792
Longitude:	-121.3301558
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	2005-06-03 00:00:00
Lead Agency:	SAN JOAQUIN COUNTY LOP
Case Worker:	HAR
Local Agency:	SAN JOAQUIN COUNTY LOP
RB Case Number:	390925
LOC Case Number:	1204
File Location:	Local Agency
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0607700747
Contact Type:	Regional Board Caseworker
Contact Name:	JAMES BARTON
Organization Name:	CENTRAL VALLEY RWQCB (REGION 5S)
Address:	11020 SUN CENTER DRIVE #200
City:	RANCHO CORDOVA
Email:	jbarton@waterboards.ca.gov
Phone Number:	Not reported

THE LEARNER COMPANY (Continued) **U001603309**

Global Id: T0607700747
Contact Type: Local Agency Caseworker
Contact Name: HARLIN KNOLL
Organization Name: SAN JOAQUIN COUNTY LOP
Address: 600 E. MAIN STREET
City: STOCKTON
Email: hknoll@sjcehd.com
Phone Number: Not reported

LUST:
Global Id: T0607700747
Action Type: ENFORCEMENT
Date: 1996-12-19 00:00:00
Action: Notice of Reimbursement

Global Id: T0607700747
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Discovery

Global Id: T0607700747
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Reported

LUST REG 5:
Region: 5
Status: Case Closed
Case Number: 390925
Case Type: Drinking Water Aquifer affected
Substance: GASOLINE
Staff Initials: JLB
Lead Agency: Local
Program: LUST
MTBE Code: 2

HIST UST:
Region: STATE
Facility ID: 00000001669
Facility Type: Other
Other Type: SCRAP YARD
Total Tanks: 0003
Contact Name: Not reported
Telephone: 2099483498
Owner Name: UNION OIL COMPANY OF CALIFORNI
Owner Address: P.O. BOX 1489
Owner City,St,Zip: STOCKTON, CA 95201

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported

THE LEARNER COMPANY (Continued) **U001603309**

Leak Detection: Visual

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00003000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Visual

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Visual

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Visual

SWEEPS UST:
Status: A
Comp Number: 1204
Number: 1
Board Of Equalization: 44-024586
Ref Date: 06-30-92
Act Date: 06-30-92
Created Date: 07-06-88
Tank Status: A
Owner Tank Id: 001
Swrcb Tank Id: 39-000-001203-000001
Actv Date: 06-30-92
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: 2

Status: A
Comp Number: 1204
Number: 1
Board Of Equalization: 44-024586
Ref Date: 06-30-92
Act Date: 06-30-92
Created Date: 07-06-88
Tank Status: A
Owner Tank Id: 002
Swrcb Tank Id: 39-000-001203-000002

THE LEARNER COMPANY (Continued) **U001603309**

Actv Date:	06-30-92
Capacity:	4000
Tank Use:	M.V. FUEL
Stg:	P
Content:	LEADED
Number Of Tanks:	Not reported

HAZNET:

Year:	2009
Gepaid:	CAL000049763
Contact:	TERRY LOESER-FACILITY MANAGER
Telephone:	2099483498
Mailing Name:	Not reported
Mailing Address:	2711 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Contaminated soil from site clean-up
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	8927
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAL000049763
Contact:	TERRY LOESER-FACILITY MANAGER
Telephone:	2099483498
Mailing Name:	Not reported
Mailing Address:	2711 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	CAT080014079
TSD County:	Contra Costa
Waste Category:	Liquids with mercury >= 20 Mg./L
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.175
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAL000049763
Contact:	TERRY LOESER-FACILITY MANAGER
Telephone:	2099483498
Mailing Name:	Not reported
Mailing Address:	2711 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	CAT080014079
TSD County:	Contra Costa
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.2
Facility County:	San Joaquin

Year:	2008

THE LEARNER COMPANY (Continued) **U001603309**

Gepaid:	CAL000049763
Contact:	TERRY LOESER-FACILITY MANAGER
Telephone:	2099483498
Mailing Name:	Not reported
Mailing Address:	2711 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Adhesives
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	94.11741
Facility County:	San Joaquin

Year:	2008
Gepaid:	CAL000049763
Contact:	TERRY LOESER-FACILITY MANAGER
Telephone:	2099483498
Mailing Name:	Not reported
Mailing Address:	2711 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Polychlorinated biphenyls and material containing PCBs
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	396.29709
Facility County:	San Joaquin

Click this hyperlink while viewing on your computer to access
5 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	2006
County Code:	39
Air Basin:	SJV
Facility ID:	473
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0016494160194412190
Reactive Organic Gases Tons/Yr:	.00164125
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	473
Air District Name:	SJU

THE LEARNER COMPANY (Continued) **U001603309**

SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0016494160194412190
Reactive Organic Gases Tons/Yr:	.00164125
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	473
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0016494160194412190
Reactive Organic Gases Tons/Yr:	.00164125
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

F131 **LEARNER COMPANY, THE** **UST** **U004025020**
SE **2711 NAVY DR** **N/A**
1/4-1/2 **STOCKTON, CA 95206**
0.288 mi.
1520 ft. **Site 2 of 6 in cluster F**

Relative:
Lower

Actual:
6 ft.

UST SAN JOAQUIN:

Region:	SJ
Facility Id:	FA0003793
Mail Address:	3001 AGNESS RD
Mail Care of:	Not reported
Mail City,St,Zip:	MANHATTAN BEACH, CA 90266

Tank Rec ID:	TA0120401
Tank Number:	1
Tank Status:	CLOSED
Tank Capacity:	10000
Product Type:	03
Product Type Desc:	DIESEL
Program Element:	2380

Tank Rec ID:	TA0120402
Tank Number:	2
Tank Status:	CLOSED
Tank Capacity:	4000
Product Type:	1A
Product Type Desc:	REGULAR UNLEADED
Program Element:	2380

F132 **LEARNER COMPANY, THE** **SLIC** **S105032475**
SE **2711 NAVY DRIVE** **CHMIRS** **N/A**
1/4-1/2 **STOCKTON, CA 95203** **VCP**
0.288 mi. **HAZNET**
1520 ft. **Site 3 of 6 in cluster F** **EMI**
ENVIROSTOR

Relative:
Lower

Actual:
6 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Inactive**
Status Date:	2007-09-20 00:00:00
Global Id:	SL0607782612
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.940033
Longitude:	-121.332222
Case Type:	Cleanup Program Site
Case Worker:	ZZZ
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Not reported
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Polychlorinated biphenyls (PCBs)
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

CHMIRS:

OES Incident Number:	07-5141
OES notification:	8/27/2007 11:45:01 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported

LEARNER COMPANY, THE (Continued) **S105032475**

CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2007
Agency:	Learner Co
Incident Date:	8/15/2007 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Merchant/Business
E Date:	Not reported
Substance:	PCB
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	60
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Ruptured transformer caused the spill. This was due to the demolition of a building. The clean up has not started. The process starts tomorrow. The material is contained in a concrete lined sump. The material is all located within about 200 square feeet. It is barricaed and protected by entry from human or animal.
OES Incident Number:	99-0055
OES notification:	1/6/199910:44:53 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported

LEARNER COMPANY, THE (Continued) **S105032475**

Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1999
Agency:	Learner Company
Incident Date:	1/6/199912:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Merchant/Business
E Date:	Not reported
Substance:	radioactive scrap steel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0

LEARNER COMPANY, THE (Continued) **S105032475**

Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	A load of scrap metal came in and has set off the meters. It is reading 397 counts per second. The background reading is 134 counts per second

VCP:

Facility ID:	39500016
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	186
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Mitigation And Brownfield Reuse Program
Project Manager:	JERRY LILE
Supervisor:	Steven Becker
Division Branch:	San Joaquin & Legacy
Site Code:	101994
Assembly:	26
Senate:	05
Special Programs Code:	Voluntary Cleanup Program
Status:	Active
Status Date:	2008-12-03 00:00:00
Restricted Use:	NO
Funding:	Not reported
Lat/Long:	37.938899999999997 / -121.3306
APN:	NONE SPECIFIED
Past Use:	JUNKYARD, METAL RECLAMATION, RECYCLING - SCRAP METAL
Potential COC:	30018
Confirmed COC:	30018
Potential Description:	SOIL
Alias Name:	CAN000908566
Alias Type:	EPA Identification Number
Alias Name:	T0607700747
Alias Type:	GeoTracker Global ID
Alias Name:	101994
Alias Type:	Project Code (Site Code)
Alias Name:	39500016
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Initial Study/ Neg. Declaration
Completed Date:	2010-10-27 00:00:00
Comments:	10/27/2010 NOD and Negative Declaration signed documents.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement

LEARNER COMPANY, THE (Continued) **S105032475**

Completed Date: 2009-08-31 00:00:00
Comments: DTSC signed VCA dated 8/31/2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1989-03-20 00:00:00
Comments: SITE SCREENING DONE. PRELIMINARY ASSESSMENT MEDIUM PRIORITY REQUIRED TO DETERMINE IF OPERATION HAS CAUSED SOIL CONTAMINATION.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 2008-05-13 00:00:00
Comments: A site screen was completed for USEPA under the Preliminary Assessment/Site Inspection Grant.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 2009-12-22 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 2010-10-27 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 2010-09-21 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 2010-09-21 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 2010-09-21 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 2010-05-24 00:00:00
Comments: USEPA completed a Preliminary Assessment for the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 1982-07-06 00:00:00

LEARNER COMPANY, THE (Continued) **S105032475**

Comments: FACILITY IDENTIFIED FROM DRIVE-BY.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Removal Action Completion Report
Future Due Date: 2011
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Plan
Future Due Date: 2012
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Land Use Restriction
Future Due Date: 2012
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Certification
Future Due Date: 2013
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

HAZNET:
Year: 2002
Gepaid: CAL000049763
Contact: TERRY LOESER-FOREMAN
Telephone: 2099483498
Mailing Name: Not reported
Mailing Address: 2711 NAVY DR
Mailing City,St,Zip: STOCKTON, CA 952060000
Gen County: San Joaquin
TSD EPA ID: Not reported
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: D80
Tons: 0.35
Facility County: Not reported

Year: 2002
Gepaid: CAL000049763
Contact: TERRY LOESER-FOREMAN
Telephone: 2099483498
Mailing Name: Not reported
Mailing Address: 2711 NAVY DR
Mailing City,St,Zip: STOCKTON, CA 952060000
Gen County: San Joaquin
TSD EPA ID: Not reported
TSD County: Los Angeles
Waste Category: Unspecified oil-containing waste
Disposal Method: D80
Tons: 0.40
Facility County: Not reported

Year: 2001
Gepaid: CAL000049763

LEARNER COMPANY, THE (Continued) **S105032475**

Contact:	TERRY LOESER-FOREMAN
Telephone:	2099483498
Mailing Name:	Not reported
Mailing Address:	2711 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	Los Angeles
Waste Category:	Oil/water separation sludge
Disposal Method:	D80
Tons:	0.68
Facility County:	Not reported

Year:	2001
Gepaid:	CAL000049763
Contact:	TERRY LOESER-FOREMAN
Telephone:	2099483498
Mailing Name:	Not reported
Mailing Address:	2711 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	D80
Tons:	0.45
Facility County:	Not reported

Year:	2000
Gepaid:	CAL000049763
Contact:	HUGO NEU CORPORATION
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	2711 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	CAT080033681
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	D80
Tons:	.6000
Facility County:	San Joaquin

Click this hyperlink while viewing on your computer to access
11 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	1987
County Code:	39
Air Basin:	SJV
Facility ID:	64
Air District Name:	SJU
SIC Code:	5093
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0

LEARNER COMPANY, THE (Continued) **S105032475**

Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

ENVIROSTOR:

Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	186
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	JERRY LILE
Supervisor:	Steven Becker
Division Branch:	San Joaquin & Legacy
Facility ID:	39500016
Site Code:	101994
Assembly:	26
Senate:	05
Special Program:	Voluntary Cleanup Program
Status:	Active
Status Date:	2008-12-03 00:00:00
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.938899999999997
Longitude:	-121.3306
APN:	NONE SPECIFIED
Past Use:	JUNKYARD, METAL RECLAMATION, RECYCLING - SCRAP METAL
Potential COC:	30018
Confirmed COC:	30018
Potential Description:	SOIL
Alias Name:	CAN000908566
Alias Type:	EPA Identification Number
Alias Name:	T0607700747
Alias Type:	GeoTracker Global ID
Alias Name:	101994
Alias Type:	Project Code (Site Code)
Alias Name:	39500016
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Initial Study/ Neg. Declaration
Completed Date:	2010-10-27 00:00:00
Comments:	10/27/2010 NOD and Negative Declaration signed documents.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	2009-08-31 00:00:00
Comments:	DTSC signed VCA dated 8/31/2009.
Completed Area Name:	PROJECT WIDE

LEARNER COMPANY, THE (Continued) **S105032475**

Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1989-03-20 00:00:00
Comments: SITE SCREENING DONE. PRELIMINARY ASSESSMENT MEDIUM PRIORITY REQUIRED TO DETERMINE IF OPERATION HAS CAUSED SOIL CONTAMINATION.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 2008-05-13 00:00:00
Comments: A site screen was completed for USEPA under the Preliminary Assessment/Site Inspection Grant.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 2009-12-22 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 2010-10-27 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 2010-09-21 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 2010-09-21 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 2010-09-21 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 2010-05-24 00:00:00
Comments: USEPA completed a Preliminary Assessment for the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 1982-07-06 00:00:00
Comments: FACILITY IDENTIFIED FROM DRIVE-BY.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported

LEARNER COMPANY, THE (Continued) **S105032475**

Future Document Type:	Removal Action Completion Report
Future Due Date:	2011
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Plan
Future Due Date:	2012
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Land Use Restriction
Future Due Date:	2012
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Certification
Future Due Date:	2013
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

F133 **THE LEARNER COMPANY** **CA FID UST** **S101625473**
SE **2711 NAVY DR** **N/A**
1/4-1/2 **STOCKTON, CA 95206**
0.288 mi.
1520 ft. **Site 4 of 6 in cluster F**

Relative:
Lower

Actual:
6 ft.

CA FID UST:

Facility ID:	39004133
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	2711 NAVY DR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95206
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

F134 **THE LEARNER COMPANY** **AST** **A100337339**
SE **2711 NAVY** **N/A**
1/4-1/2 **STOCKTON, CA 95206**
0.288 mi.
1520 ft. **Site 5 of 6 in cluster F**

Relative:
Lower

Actual:
6 ft.

AST:

Owner:	LEARNER COMPANY, THE
Total Gallons:	5,425
Certified Unified Program Agencies:	San Joaquin

G135 ENE 1/4-1/2 0.291 mi. 1537 ft. | **POSDEF POWER COMPANY** SOME ARCHIVED** | **SLIC** | **S106230482** **N/A**

2526 WASHINGTON ST W
STOCKTON, CA

Site 1 of 6 in cluster G

Relative: Lower

Actual: 6 ft.

SLIC:

Region:	5
Facility Status:	Remediation Completed
Unit:	Facility is a Spill or site
Pollutant:	sulfuric acid
Lead Agency:	Not reported
Date Filed:	07/24/95
Report Date:	08/11/95
Date Added:	Not reported
Date Closed:	Not reported

G136 ENE 1/4-1/2 0.304 mi. 1603 ft. | **POSDEF POWER COMPANY L.P.** | **NPDES CA FID UST SWEEPS UST CHMIRS HAZNET EMI** | **S101593125** **N/A**

2526 W WASHINGTON ST
STOCKTON, CA 95203

Site 2 of 6 in cluster G

Relative: Lower

Actual: 5 ft.

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I002796
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	4/2/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Posdef Power Co LP
Discharge Address:	2526 W Washington St
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95203

CA FID UST:

Facility ID:	39002595
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2094673838
Mail To:	Not reported
Mailing Address:	2201 W WASHINGTON ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95203
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported

POSDEF POWER COMPANY L.P. (Continued) **S101593125**

NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: A
Comp Number: 2535
Number: 1
Board Of Equalization: 44-034678
Ref Date: 11-20-92
Act Date: 11-20-92
Created Date: 09-09-91
Tank Status: A
Owner Tank Id: 001
Swrcb Tank Id: 39-000-002535-000001
Actv Date: 11-20-92
Capacity: 1000
Tank Use: OIL
Stg: W
Content: WASTE OIL
Number Of Tanks: 1

Status: Not reported
Comp Number: 2535
Number: Not reported
Board Of Equalization: 44-034678
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-002535-000002
Actv Date: Not reported
Capacity: 500
Tank Use: EMPTY
Stg: PRODUCT
Content: WASTE OIL
Number Of Tanks: 1

CHMIRS:
OES Incident Number: 01-5089
OES notification: 9/6/200105:14:19 PM
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
Special Studies 1: Not reported

POSDEF POWER COMPANY L.P. (Continued) **S101593125**

Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2001
Agency:	NRC
Incident Date:	9/6/200112:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Unknown
Site Type:	Utilities/Substation
E Date:	Not reported
Substance:	Sulfur Dioxide
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0
Grams:	0
Pounds:	20
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0.000000
Evacuations:	0
Number of Injuries:	0

POSDEF POWER COMPANY L.P. (Continued) **S101593125**

Number of Fatalities: 0
Description: Per the NRC report, caller states the material was released from a power plant stack into the atmosphere due to an upset in the boiler system.

HAZNET:

Year: 2009
Gepaid: CAL000029222
Contact: T L. STINSON, PLANT PROD'N MGR
Telephone: 2093203712
Mailing Name: Not reported
Mailing Address: 2526 W WASHINGTON ST
Mailing City,St,Zip: STOCKTON, CA 952032952
Gen County: San Joaquin
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Liquids with pH <= 2
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.175
Facility County: San Joaquin

Year: 2009
Gepaid: CAL000029222
Contact: T L. STINSON, PLANT PROD'N MGR
Telephone: 2093203712
Mailing Name: Not reported
Mailing Address: 2526 W WASHINGTON ST
Mailing City,St,Zip: STOCKTON, CA 952032952
Gen County: San Joaquin
TSD EPA ID: TXD077603371
TSD County: 99
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method: FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons: 0.125
Facility County: San Joaquin

Year: 2009
Gepaid: CAL000029222
Contact: T L. STINSON, PLANT PROD'N MGR
Telephone: 2093203712
Mailing Name: Not reported
Mailing Address: 2526 W WASHINGTON ST
Mailing City,St,Zip: STOCKTON, CA 952032952
Gen County: San Joaquin
TSD EPA ID: CAD980675276
TSD County: Kern
Waste Category: Other organic solids
Disposal Method: LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons: 3.25
Facility County: San Joaquin

Year: 2009
Gepaid: CAL000029222
Contact: T L. STINSON, PLANT PROD'N MGR
Telephone: 2093203712

POSDEF POWER COMPANY L.P. (Continued) **S101593125**

Mailing Name: Not reported
Mailing Address: 2526 W WASHINGTON ST
Mailing City,St,Zip: STOCKTON, CA 952032952
Gen County: San Joaquin
TSD EPA ID: CAD093459485
TSD County: Fresno
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.21684
Facility County: San Joaquin

Year: 2009
Gepaid: CAL000029222
Contact: T L. STINSON, PLANT PROD'N MGR
Telephone: 2093203712
Mailing Name: Not reported
Mailing Address: 2526 W WASHINGTON ST
Mailing City,St,Zip: STOCKTON, CA 952032952
Gen County: San Joaquin
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Other organic solids
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 1.05
Facility County: San Joaquin

Click this hyperlink while viewing on your computer to access
123 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:
Year: 2006
County Code: 39
Air Basin: SJV
Facility ID: 645
Air District Name: SJU
SIC Code: 4911
Air District Name: SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System: Y
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 6.598516188670559760
Reactive Organic Gases Tons/Yr: 5.16481139808722953
Carbon Monoxide Emissions Tons/Yr: 182.7238321968384088
NOX - Oxides of Nitrogen Tons/Yr: 66.0221215756869316
SOX - Oxides of Sulphur Tons/Yr: 44.76606691721284389
Particulate Matter Tons/Yr: 19.21550602256167417
Part. Matter 10 Micrometers & Smllr Tons/Yr: 7.92092110919219399

Year: 2007
County Code: 39
Air Basin: SJV
Facility ID: 645
Air District Name: SJU
SIC Code: 4911
Air District Name: SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System: Y

POSDEF POWER COMPANY L.P. (Continued) **S101593125**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	72.67698646837961079
Reactive Organic Gases Tons/Yr:	3.49230346490572035
Carbon Monoxide Emissions Tons/Yr:	331.2684668989327313
NOX - Oxides of Nitrogen Tons/Yr:	58.00144456795198023
SOX - Oxides of Sulphur Tons/Yr:	17.86336152392948866
Particulate Matter Tons/Yr:	20.27949534760722286
Part. Matter 10 Micrometers & Smllr Tons/Yr:	8.12801905238101304

Year:	2007
County Code:	39
Air Basin:	SJV
Facility ID:	645
Air District Name:	SJU
SIC Code:	4911
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	246.0838252253809955
Reactive Organic Gases Tons/Yr:	12.179650003576279
Carbon Monoxide Emissions Tons/Yr:	285.45950000415802
NOX - Oxides of Nitrogen Tons/Yr:	64.473745001821518
SOX - Oxides of Sulphur Tons/Yr:	52.362535002975464
Particulate Matter Tons/Yr:	68.83283996228976331
Part. Matter 10 Micrometers & Smllr Tons/Yr:	27.896795003194809

G137 **POSDEF POWER CO, L P** **UST** **U003786328**
ENE **2526 WASHINGTON ST** **N/A**
1/4-1/2 **STOCKTON, CA 95203**
0.304 mi.
1603 ft. **Site 3 of 6 in cluster G**

Relative:
Lower

Actual:
5 ft.

UST:

Facility ID:	17152
Latitude:	37.94447
Longitude:	-121.33078

G138 **POSDEF POWER CO, L P-COAL SITE*** **UST** **U004024601**
ENE **2526 W WASHINGTON ST** **N/A**
1/4-1/2 **STOCKTON, CA 95203**
0.304 mi.
1603 ft. **Site 4 of 6 in cluster G**

Relative:
Lower

Actual:
5 ft.

UST SAN JOAQUIN:

Region:	SJ
Facility Id:	FA0003692
Mail Address:	2526 W WASHINGTON ST
Mail Care of:	POSDEF POWER CO, L P
Mail City,St,Zip:	STOCKTON, CA 95203

Tank Rec ID:	TA0253501
Tank Number:	1
Tank Status:	INACTIVE
Tank Capacity:	1000
Product Type:	99
Product Type Desc:	OTHER

POSDEF POWER CO, L P-COAL SITE* (Continued) **U004024601**

Program Element: 2362

Tank Rec ID: TA0253502
Tank Number: 2
Tank Status: ACTIVE, EXEMPT
Tank Capacity: 500
Product Type: 99
Product Type Desc: OTHER
Program Element: 2360

G139
ENE
1/4-1/2
0.304 mi.
1603 ft.

POSDEF POWER COMPANY, LP **RCRA-LQG** **1012175573**
2526 W. WASHINGTON STREET **CAL000029222**
STOCKTON, CA 95203

Site 5 of 6 in cluster G

Relative:
Lower

Actual:
5 ft.

RCRA-LQG:
Date form received by agency: 02/25/2008
Facility name: POSDEF POWER COMPANY, LP
Facility address: 2526 W. WASHINGTON STREET
STOCKTON, CA 95203
EPA ID: CAL000029222
Contact: DOUGLAS Y HALE
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: (209) 320-3714
Contact email: DOUGLAS_HALE@FPL.COM
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: FPL ENERGY OPERATING SERVICES
Owner/operator address: 2526 W. WASHINGTON STREET
STOCKTON, CA 95203
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 04/01/2005
Owner/Op end date: Not reported

Owner/operator name: FPL ENERGY OPERATING SERVICES
Owner/operator address: Not reported

POSDEF POWER COMPANY, LP (Continued) **1012175573**

	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	04/01/2005
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Violation Status: No violations found

G140 ENE 1/4-1/2 0.348 mi. 1839 ft. | **H H ROBERTSON**
W WASHINGTON ST & PORT RD 23
STOCKTON, CA 95203

Site 6 of 6 in cluster G

RCRA-NonGen FINDS | **1000130163 CAD982403388**

Relative: Lower

Actual: 6 ft.

RCRA-NonGen:

Date form received by agency:	02/12/1990
Facility name:	H H ROBERTSON
Facility address:	W WASHINGTON ST & PORT RD 23 STOCKTON, CA 95203
EPA ID:	CAD982403388
Mailing address:	P O BOX 201057 STOCKTON, CA 95201
Contact:	ENVIRONMENTAL MANAGER
Contact address:	W WASHINGTON ST & PORT RD 23 STOCKTON, CA 95203
Contact country:	US
Contact telephone:	(209) 943-2124
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	State
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	PORT OF STOCKTON
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	State
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No

H H ROBERTSON (Continued) **1000130163**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110008277220

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

F141
SE
1/4-1/2
0.373 mi.
1968 ft.

THE LEARNER COMPANY
2711 NAVY DRIVE
STOCKTON, CA 95203

CERCLIS **1011487952**
CAN000908566

Site 6 of 6 in cluster F

Relative:
Lower

Actual:
5 ft.

CERCLIS:

Site ID:	0908566
EPA ID:	CAN000908566
Facility County:	SAN JOAQUIN
Short Name:	THE LEARNER COMPANY
Congressional District:	Not reported
IFMS ID:	Not reported
SMSA Number:	Not reported
USGC Hydro Unit:	Not reported
Federal Facility:	Not a Federal Facility
DMNSN Number:	Not reported
Site Orphan Flag:	Not reported
RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	S
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	Not reported
EPA Region:	09
Classification:	Not reported
Site Settings Code:	Not reported
NPL Status:	Not on the NPL
DMNSN Unit Code:	Not reported
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	NFRAP-Site does not qualify for the NPL based on existing information
Non NPL Status Date:	20100524
Site Fips Code:	06077
CC Concurrence Date:	Not reported
CC Concurrence FY:	Not reported
Alias EPA ID:	Not reported
Site FUDS Flag:	Not reported

THE LEARNER COMPANY (Continued) **1011487952**

CERCLIS Site Contact Name(s):

Contact ID:	9271184.00000
Contact Name:	Karen Jurist
Contact Tel:	(415) 972-3219
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported

Contact ID:	9270048.00000
Contact Name:	Jeff Inglis
Contact Tel:	(415) 972-3095
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported

Contact ID:	13002167.00000
Contact Name:	Carl Brickner
Contact Tel:	(415) 972-3814
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported

Contact ID:	9270438.00000
Contact Name:	Dawn Richmond
Contact Tel:	(415) 972-3097
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported

Alias Comments:	Not reported

Site Description: Not reported

CERCLIS Assessment History:

Action Code:	001
Action:	DISCOVERY
Date Started:	Not reported
Date Completed:	05/13/2008
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	State, Fund Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	PRE-CERCLIS SCREENING
Date Started:	07/01/2007
Date Completed:	05/13/2008
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	State, Fund Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

THE LEARNER COMPANY (Continued) **1011487952**

Action Code:	001
Action:	PRELIMINARY ASSESSMENT
Date Started:	Not reported
Date Completed:	05/24/2010
Priority Level:	NFRAP-Site does not qualify for the NPL based on existing information
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Click this hyperlink while viewing on your computer to access
additional US CERCLIS Financial: detail in the EDR Site Report.

H142 **A PLUS MATERIALS RECYCLING INC** **AST** **A100339985**
ENE **250 PORT** **N/A**
1/4-1/2 **STOCKTON, CA 95205**
0.392 mi.
2072 ft. **Site 1 of 4 in cluster H**

Relative:
Lower

Actual:
7 ft.

AST:

Owner:	A PLUS MATERIALS RECYCLING INC
Total Gallons:	22,384
Certified Unified Program Agencies:	San Joaquin

H143 **CARGILL MOLASSES** **SLIC** **S106486805**
ENE **2321 W. WASHINGTON ST # D** **N/A**
1/4-1/2 **STOCKTON, CA**
0.459 mi.
2423 ft. **Site 2 of 4 in cluster H**

Relative:
Lower

Actual:
7 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	2009-06-03 00:00:00
Global Id:	SLT5S7203741
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	0
Longitude:	0
Case Type:	Cleanup Program Site
Case Worker:	ZZZ
Local Agency:	Not reported
RB Case Number:	SLT5S720
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	* Fertilizers
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

H144 ENE 1/4-1/2 0.459 mi. 2423 ft.

METROPOLITAN STEVEDORE COMPANY
2321 W WASHINGTON ST STE J
STOCKTON, CA 95203

RCRA-SQG FINDS HAZNET

1006805448 CAR000127886

Site 3 of 4 in cluster H

Relative: Lower

Actual: 7 ft.

RCRA-SQG:

Date form received by agency:	09/12/2002
Facility name:	METROPOLITAN STEVEDORE COMPANY
Facility address:	2321 W WASHINGTON ST STE J STOCKTON, CA 95203
EPA ID:	CAR000127886
Mailing address:	P O BOX 986 STOCKTON, CA 95201
Contact:	THOMAS MOGAN
Contact address:	P O BOX 986 STOCKTON, CA 95201
Contact country:	US
Contact telephone:	(209) 943-2752
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	PORT OF STOCKTON
Owner/operator address:	2321 W WASHINGTON ST STE J STOCKTON, CA 95203
Owner/operator country:	Not reported
Owner/operator telephone:	(209) 943-2752
Legal status:	District
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

METROPOLITAN STEVEDORE COMPANY (Continued) **1006805448**

FINDS:

Registry ID: 110013305994

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Year:	2009
Gepaid:	CAR000127886
Contact:	BRIAN JOHNSON/DIR, ANALYSIS
Telephone:	3108166607
Mailing Name:	Not reported
Mailing Address:	720 EAST E STREET
Mailing City,St,Zip:	WILMINGTON, CA 907440000
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Other organic solids
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.45
Facility County:	San Joaquin

Year:	2008
Gepaid:	CAR000127886
Contact:	BRIAN JOHNSON/DIR, ANALYSIS
Telephone:	3108166607
Mailing Name:	Not reported
Mailing Address:	720 EAST E STREET
Mailing City,St,Zip:	WILMINGTON, CA 907440000
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Other organic solids
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.4
Facility County:	San Joaquin

Year:	2007
Gepaid:	CAR000127886
Contact:	BRIAN JOHNSON/DIR, ANALYSIS
Telephone:	3108166607
Mailing Name:	Not reported

METROPOLITAN STEVEDORE COMPANY (Continued) **1006805448**

Mailing Address:	720 EAST E STREET
Mailing City,St,Zip:	WILMINGTON, CA 907440000
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Contaminated soil from site clean-up
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	42.48
Facility County:	San Joaquin

Year:	2006
Gepaid:	CAR000127886
Contact:	CRAIG KAPPE/SAFETY MANAGER
Telephone:	3108166607
Mailing Name:	Not reported
Mailing Address:	720 EAST E STREET
Mailing City,St,Zip:	WILMINGTON, CA 907440000
Gen County:	San Joaquin
TSD EPA ID:	CAD044003556
TSD County:	Yolo
Waste Category:	Unspecified oil-containing waste
Disposal Method:	H01
Tons:	7.08
Facility County:	San Joaquin

Year:	2003
Gepaid:	CAR000127886
Contact:	CRAIG KAPPE/SAFETY MANAGER
Telephone:	3108166607
Mailing Name:	Not reported
Mailing Address:	720 EAST E STREET
Mailing City,St,Zip:	WILMINGTON, CA 907440000
Gen County:	San Joaquin
TSD EPA ID:	CAD059494310
TSD County:	San Joaquin
Waste Category:	Oil/water separation sludge
Disposal Method:	H01
Tons:	1.6
Facility County:	San Joaquin

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

H145 **UAP/PACIFEX** **SLIC** **S106486640**
ENE **2321 W. WASHINGTON, SUITE C** **N/A**
1/4-1/2 **STOCKTON, CA 95203**
0.459 mi.
2423 ft. **Site 4 of 4 in cluster H**

Relative:
Lower

Actual:
7 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Inactive**
Status Date:	1995-01-02 00:00:00
Global Id:	SLT5S3913685
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.95741

UAP/PACIFEX (Continued) **S106486640**

Longitude:	-121.256658
Case Type:	Cleanup Program Site
Case Worker:	ZZZ
Local Agency:	Not reported
RB Case Number:	SLT5S391
File Location:	Not reported
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

I146
NW
1/2-1
0.504 mi.
2659 ft.

TOSCO BULK TERMINAL #10013 (FORMER) **SLIC** **S105556803**
3505 NAVY DRIVE **CHMIRS** **N/A**
STOCKTON, CA **EMI**

Site 1 of 4 in cluster I

Relative:
Higher

Actual:
8 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	2003-10-15 00:00:00
Global Id:	SL375143638
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.951101
Longitude:	-121.343892
Case Type:	Cleanup Program Site
Case Worker:	KAS
Local Agency:	Not reported
RB Case Number:	SL375143638
File Location:	Regional Board
Potential Media Affected:	Aquifer used for drinking water supply, Soil
Potential Contaminants of Concern:	Diesel, Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

CHMIRS:

OES Incident Number:	97-2503
OES notification:	6/24/199706:44:20 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported

TOSCO BULK TERMINAL #10013 (FORMER) (Continued) **S105556803**

Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1997
Agency:	TOSCO Dist. Co.
Incident Date:	6/24/199712:00:00 AM
Admin Agency:	ERROR: Server error: Entry not found in index
Amount:	Not reported
Contained:	Yes
Site Type:	Industrial Plant
E Date:	Not reported
Substance:	Ethylene Glycol
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	5
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Running test on firefighting foam system some product spilled on ground.

TOSCO BULK TERMINAL #10013 (FORMER) (Continued) **S105556803**

EMI:

Year:	1996
County Code:	39
Air Basin:	SJV
Facility ID:	137
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	17
Reactive Organic Gases Tons/Yr:	17
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
County Code:	39
Air Basin:	SJV
Facility ID:	137
Air District Name:	SJU
SIC Code:	5171
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	17
Reactive Organic Gases Tons/Yr:	17
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
County Code:	39
Air Basin:	SJV
Facility ID:	137
Air District Name:	SJU
SIC Code:	4226
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	20
Reactive Organic Gases Tons/Yr:	20
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
County Code:	39
Air Basin:	SJV
Facility ID:	137
Air District Name:	SJU

TOSCO BULK TERMINAL #10013 (FORMER) (Continued) **S105556803**

SIC Code:	4226
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	14
Reactive Organic Gases Tons/Yr:	14
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
County Code:	39
Air Basin:	SJV
Facility ID:	137
Air District Name:	SJU
SIC Code:	4226
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	15
Reactive Organic Gases Tons/Yr:	15
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
County Code:	39
Air Basin:	SJV
Facility ID:	137
Air District Name:	SJU
SIC Code:	4226
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	15
Reactive Organic Gases Tons/Yr:	15
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	39
Air Basin:	SJV
Facility ID:	137
Air District Name:	SJU
SIC Code:	4226
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	15
Reactive Organic Gases Tons/Yr:	15

TOSCO BULK TERMINAL #10013 (FORMER) (Continued) **S105556803**

Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

I147 **NUSTAR TERMINALS OPERATIONS PARTNERSHIP LP** **NPDES** **S101592635**
NW **3505 NAVY DR** **CA FID UST** **N/A**
1/2-1 **STOCKTON, CA 95206** **SLIC**
0.504 mi. **SWEEPS UST**
2659 ft. **Site 2 of 4 in cluster I** **HAZNET**

Relative:
Higher

Actual:
8 ft.

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I020889
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	5/16/2007 1:42:00 PM
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	NuStar Terminals Operations Partnership LP
Discharge Address:	2941 Navy Dr
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95206

CA FID UST:

Facility ID:	39000042
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	3505 NAVY DR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95203
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SLIC:

Region:	5
Facility Status:	Feasibility Study
Unit:	Facility is a Spill or site
Pollutant:	TPH-g, d, BTEX, MTBE

NUSTAR TERMINALS OPERATIONS PARTNERSHIP LP (Continued) **S101592635**

Lead Agency: DLL
Date Filed: / /
Report Date: / /
Date Added: Not reported
Date Closed: Not reported

SWEEPS UST:
Status: A
Comp Number: 1848
Number: 1
Board Of Equalization: 44-000400
Ref Date: 11-04-92
Act Date: 11-04-92
Created Date: 07-06-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001848-000005
Actv Date: 11-04-92
Capacity: 1000
Tank Use: M.V. FUEL
Stg: W
Content: MIXED FUELS
Number Of Tanks: 3

Status: A
Comp Number: 1848
Number: 1
Board Of Equalization: 44-000400
Ref Date: 11-04-92
Act Date: 11-04-92
Created Date: 07-06-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001848-000006
Actv Date: 11-04-92
Capacity: 6000
Tank Use: HAZARDOUS
Stg: W
Content: WATER & MIXE
Number Of Tanks: Not reported

Status: A
Comp Number: 1848
Number: 1
Board Of Equalization: 44-000400
Ref Date: 11-04-92
Act Date: 11-04-92
Created Date: 07-06-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001848-000007
Actv Date: 11-04-92
Capacity: 1000
Tank Use: OIL
Stg: P
Content: FUEL OIL
Number Of Tanks: Not reported

NUSTAR TERMINALS OPERATIONS PARTNERSHIP LP (Continued) **S101592635**

Status:	Not reported
Comp Number:	1848
Number:	Not reported
Board Of Equalization:	44-000400
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001848-000001
Actv Date:	Not reported
Capacity:	280
Tank Use:	M.V. FUEL
Stg:	WASTE
Content:	MIXED FUELS
Number Of Tanks:	4

Status:	Not reported
Comp Number:	1848
Number:	Not reported
Board Of Equalization:	44-000400
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001848-000002
Actv Date:	Not reported
Capacity:	280
Tank Use:	M.V. FUEL
Stg:	WASTE
Content:	MIXED FUELS
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1848
Number:	Not reported
Board Of Equalization:	44-000400
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001848-000003
Actv Date:	Not reported
Capacity:	550
Tank Use:	OIL
Stg:	PRODUCT
Content:	FUEL OIL
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1848
Number:	Not reported
Board Of Equalization:	44-000400
Ref Date:	Not reported
Act Date:	Not reported

NUSTAR TERMINALS OPERATIONS PARTNERSHIP LP (Continued) **S101592635**

Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001848-000004
Actv Date:	Not reported
Capacity:	10000
Tank Use:	HAZARDOUS
Stg:	WASTE
Content:	WASTE WATER
Number Of Tanks:	Not reported

HAZNET:

Year:	2009
Gepaid:	CAL000334428
Contact:	MICHAEL POIRIER
Telephone:	2097622049
Mailing Name:	Not reported
Mailing Address:	90 SAN PABLO AVE
Mailing City,St,Zip:	CROCKETT, CA 945251052
Gen County:	San Joaquin
TSD EPA ID:	CAD059494310
TSD County:	Santa Clara
Waste Category:	Other organic solids
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.05
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAL000334428
Contact:	MICHAEL POIRIER
Telephone:	2097622049
Mailing Name:	Not reported
Mailing Address:	90 SAN PABLO AVE
Mailing City,St,Zip:	CROCKETT, CA 945251052
Gen County:	San Joaquin
TSD EPA ID:	CAD059494310
TSD County:	Santa Clara
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.05
Facility County:	San Joaquin

J148 **UNITED STATES NAVAL COMPUTER & TELECOMMUNICATIONS** **SLIC** **S106483860**
NW **305 FYFFE AVE AC-43** **N/A**
1/2-1 **STOCKTON, CA 95203**
0.515 mi.
2721 ft. **Site 1 of 2 in cluster J**

Relative:
Lower

Actual:
7 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Assessment & Interim Remedial Action**
Status Date:	2010-05-12 00:00:00
Global Id:	SL186152973
Lead Agency:	DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number:	Not reported

UNITED STATES NAVAL COMPUTER & TELECOMMUNICATIONS (Continued) **S106483860**

Latitude:	37.9775767786594
Longitude:	-121.304493668302
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	DEPARTMENT OF TOXIC SUBSTANCES CONTROL
RB Case Number:	SL186152973
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

J149
NW
1/2-1
0.515 mi.
2721 ft.

STOCKTON NCS **LUST** **S106127596**
305 FYFFE AVENUE **N/A**
STOCTON, CA 95203

Site 2 of 2 in cluster J

Relative:
Lower

Actual:
7 ft.

LUST REG 5:

Region:	5
Status:	Not reported
Case Number:	166-45
Case Type:	Not reported
Substance:	Not reported
Staff Initials:	JRB
Lead Agency:	Regional
Program:	Department of Defense - Military Bases
MTBE Code:	N/A

I150
NW
1/2-1
0.516 mi.
2724 ft.

SHELL OPUS - STOCKTON TERMINAL **SLIC** **S106855525**
3515 NAVY DRIVE **ENVIROSTOR** **N/A**
STOCKTON, CA 95205

Site 3 of 4 in cluster I

Relative:
Higher

Actual:
8 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	2002-03-15 00:00:00
Global Id:	T0607700176
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.951299
Longitude:	-121.345156
Case Type:	Cleanup Program Site
Case Worker:	KAS
Local Agency:	Not reported
RB Case Number:	390247
File Location:	Regional Board
Potential Media Affected:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	* Petroleum - Automotive gasolines, * Petroleum - Diesel fuels
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SHELL OPUS - STOCKTON TERMINAL (Continued) **S106855525**

ENVIROSTOR:

Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Facility ID:	71002128
Site Code:	Not reported
Assembly:	17
Senate:	05
Special Program:	Not reported
Status:	Refer: Other Agency
Status Date:	Not reported
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.951706999999999
Longitude:	-121.34481700000001
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD000631507
Alias Type:	EPA Identification Number
Alias Name:	71002128
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

I151 NW 1/2-1 0.516 mi. 2724 ft. | **EQUILON ENTERPRISES LLC-LOW TH**
3515 NAVY
STOCKTON, CA 95203

Site 4 of 4 in cluster I

NPDES | **S101592681**
CA FID UST | **N/A**
SLIC
SWEEPS UST

Relative: Higher

Actual: 8 ft.

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I015326
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	8/12/1999
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Shell Oil Product US
Discharge Address:	20945 S Wilmington Ave
Discharge City:	Sarson
Discharge State:	Ca
Discharge Zip:	90810

Npdes Number:	Not reported
Facility Status:	Historical
Agency Id:	14902
Region:	5S
Regulatory Measure Id:	194832
Order No:	R5-2008-0081
Regulatory Measure Type:	Enrollee
Place Id:	222870
WDID:	5B39NP00005
Program Type:	NPDES
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	9/1/2000
Expiration Date Of Regulatory Measure:	6/1/2013
Termination Date Of Regulatory Measure:	12/18/2008
Discharge Name:	Equilon Enterprises LLC
Discharge Address:	Po Box 6249
Discharge City:	Carson
Discharge State:	CA
Discharge Zip:	95201

CA FID UST:

Facility ID:	39000163
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2094666941
Mail To:	Not reported
Mailing Address:	P O BOX 775
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95203
Contact:	Not reported

EQUILON ENTERPRISES LLC-LOW TH (Continued) **S101592681**

Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SLIC:
Region: 5
Facility Status: Remediation Underway
Unit: Facility is a Spill or site
Pollutant: TPH-g, d, BTEX, MTBE
Lead Agency: DLL
Date Filed: / /
Report Date: / /
Date Added: Not reported
Date Closed: Not reported

SWEEPS UST:
Status: A
Comp Number: 1210
Number: 1
Board Of Equalization: 44-000074
Ref Date: 10-09-91
Act Date: 10-09-91
Created Date: 07-06-88
Tank Status: A
Owner Tank Id: 5
Swrcb Tank Id: 39-000-001210-000005
Actv Date: 03-09-89
Capacity: 6000
Tank Use: M.V. FUEL
Stg: W
Content: MIXED MOSTLY
Number Of Tanks: 1

Status: Not reported
Comp Number: 1210
Number: Not reported
Board Of Equalization: 44-000074
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001210-000001
Actv Date: Not reported
Capacity: 2050
Tank Use: M.V. FUEL
Stg: WASTE
Content: MIXED MOTOR
Number Of Tanks: 6

Status: Not reported
Comp Number: 1210
Number: Not reported

EQUILON ENTERPRISES LLC-LOW TH (Continued) **S101592681**

Board Of Equalization:	44-000074
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001210-000002
Actv Date:	Not reported
Capacity:	550
Tank Use:	M.V. FUEL
Stg:	WASTE
Content:	MIXED MOTOR
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1210
Number:	Not reported
Board Of Equalization:	44-000074
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001210-000003
Actv Date:	Not reported
Capacity:	500
Tank Use:	M.V. FUEL
Stg:	WASTE
Content:	MIXED MOTOR
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1210
Number:	Not reported
Board Of Equalization:	44-000074
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001210-000004
Actv Date:	Not reported
Capacity:	1400
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1210
Number:	Not reported
Board Of Equalization:	44-000074
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported

EQUILON ENTERPRISES LLC-LOW TH (Continued) **S101592681**

Swrcb Tank Id:	39-000-001210-000006
Actv Date:	Not reported
Capacity:	550
Tank Use:	UNKNOWN
Stg:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1210
Number:	Not reported
Board Of Equalization:	44-000074
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001210-000007
Actv Date:	Not reported
Capacity:	100
Tank Use:	Not reported
Stg:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

K152 **WASTE WATER TREATMENT PLANT (CASE #2)** **LUST** **S106668345**
SE **2500 NAVY DRIVE** **N/A**
1/2-1 **STOCKTON, CA 95201**
0.534 mi.
2818 ft. **Site 1 of 3 in cluster K**

Relative:
Lower

Actual:
6 ft.

LUST:

Region:	STATE
Global Id:	T0607799511
Latitude:	37.936564
Longitude:	-121.329185
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	1997-12-18 00:00:00
Lead Agency:	SAN JOAQUIN COUNTY LOP
Case Worker:	MAR
Local Agency:	Not reported
RB Case Number:	391137
LOC Case Number:	12031
File Location:	Not reported
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0607799511
Contact Type:	Regional Board Caseworker
Contact Name:	JAMES BARTON
Organization Name:	CENTRAL VALLEY RWQCB (REGION 5S)
Address:	11020 SUN CENTER DRIVE #200
City:	RANCHO CORDOVA

WASTE WATER TREATMENT PLANT (CASE #2) (Continued) **S106668345**

Email: jbarton@waterboards.ca.gov
Phone Number: Not reported

LUST:
Global Id: T0607799511
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Discovery

Global Id: T0607799511
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Reported

LUST REG 5:
Region: 5
Status: Case Closed
Case Number: 391137
Case Type: Undefined
Substance: GASOLINE
Staff Initials: JLB
Lead Agency: Local
Program: LUST
MTBE Code: N/A

K153 **HIST CORTESE** **S101302781**
SE **2500 NAVY DRIVE** **LUST** **N/A**
1/2-1 **STOCKTON, CA 95206** **CHMIRS**
0.534 mi. **HAZNET**
2818 ft. **Site 2 of 3 in cluster K**

Relative:
Lower

Actual:
6 ft.

CORTESE:
Region: CORTESE
Facility County Code: 39
Reg By: LTNKA
Reg Id: 390091

LUST:
Region: STATE
Global Id: T0607700065
Latitude: 37.93633
Longitude: -121.329457
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 1993-06-24 00:00:00
Lead Agency: SAN JOAQUIN COUNTY LOP
Case Worker: MAR
Local Agency: Not reported
RB Case Number: 390091
LOC Case Number: 1203
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

(Continued) **S101302781**

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0607700065
Contact Type:	Regional Board Caseworker
Contact Name:	JAMES BARTON
Organization Name:	CENTRAL VALLEY RWQCB (REGION 5S)
Address:	11020 SUN CENTER DRIVE #200
City:	RANCHO CORDOVA
Email:	jbarton@waterboards.ca.gov
Phone Number:	Not reported

LUST:

Global Id:	T0607700065
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Discovery
Global Id:	T0607700065
Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Reported

LUST REG 5:

Region:	5
Status:	Case Closed
Case Number:	390091
Case Type:	Drinking Water Aquifer affected
Substance:	GASOLINE
Staff Initials:	JLB
Lead Agency:	Local
Program:	LUST
MTBE Code:	N/A

CHMIRS:

OES Incident Number:	'10-7012
OES notification:	11/22/2010 8:51:00 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported

(Continued) **S101302781**

Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	San Joaquin River
Spill Site:	Treatment/Sewage Facility
Cleanup By:	None
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Unknown
Other:	Not reported
Date/Time:	2015
Year:	2010
Agency:	City of Stockton Waste Water Treatment Plant
Incident Date:	11/20/2010
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	San Joaquin River
E Date:	Not reported
Substance:	Treated Water 1.3ppm Chlorine
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
Description:	RP states that a mechanical failure caused the release of chlorinated water to the San Joaquin River for a maximum of one half hour. The volume of the release is under investigation. No dead fish have been

(Continued) **S101302781**

observed.

OES Incident Number:	'10-4190
OES notification:	7/12/2010 10:09:00 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Treatment/Sewage Facility
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1200
Year:	2010
Agency:	City of Stockton
Incident Date:	7/10/2010
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported

(Continued) **S101302781**

Substance:	Reclaimed Water
Quantity Released:	20000
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
Description:	Due to #3 Irrigation water line breaking, reclaimed water was released to soil and the plant storm drain system which is recirculated to the headworks (sewer systems)

HAZNET:

Year:	2002
Gepaid:	CAL000039581
Contact:	AVA LANGSTON KENNEY REGULATORY
Telephone:	2099378758
Mailing Name:	Not reported
Mailing Address:	2500 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061147
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	Yolo
Waste Category:	Unspecified oil-containing waste
Disposal Method:	H01
Tons:	71.17
Facility County:	Not reported

Year:	2002
Gepaid:	CAL000039581
Contact:	AVA LANGSTON KENNEY REGULATORY
Telephone:	2099378758
Mailing Name:	Not reported
Mailing Address:	2500 NAVY DR
Mailing City,St,Zip:	STOCKTON, CA 952061147
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	Santa Clara
Waste Category:	Unspecified oil-containing waste
Disposal Method:	H01
Tons:	0.20
Facility County:	Not reported

Year:	2002
Gepaid:	CAL000039581
Contact:	AVA LANGSTON KENNEY REGULATORY
Telephone:	2099378758

(Continued) **S101302781**

Mailing Name: Not reported
Mailing Address: 2500 NAVY DR
Mailing City,St,Zip: STOCKTON, CA 952061147
Gen County: San Joaquin
TSD EPA ID: Not reported
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: D80
Tons: 1.40
Facility County: Not reported

Year: 2002
Gepaid: CAL000039581
Contact: AVA LANGSTON KENNEY REGULATORY
Telephone: 2099378758
Mailing Name: Not reported
Mailing Address: 2500 NAVY DR
Mailing City,St,Zip: STOCKTON, CA 952061147
Gen County: San Joaquin
TSD EPA ID: Not reported
TSD County: 99
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: D80
Tons: 0.20
Facility County: Not reported

Year: 2002
Gepaid: CAL000039581
Contact: AVA LANGSTON KENNEY REGULATORY
Telephone: 2099378758
Mailing Name: Not reported
Mailing Address: 2500 NAVY DR
Mailing City,St,Zip: STOCKTON, CA 952061147
Gen County: San Joaquin
TSD EPA ID: Not reported
TSD County: 99
Waste Category: Off-specification, aged or surplus organics
Disposal Method: D80
Tons: 0.83
Facility County: Not reported

Click this hyperlink while viewing on your computer to access
50 additional CA_HAZNET: record(s) in the EDR Site Report.

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154 **STOCKTON ORDNANCE DEPOT** **FUDS** **1007211886**
NE **N/A**
1/2-1 **STOCKTON, CA**
0.540 mi.
2851 ft.

Relative:
Higher

Actual:
11 ft.

FUDS:
Federal Facility ID: CA9799FA304
FUDS #: J09CA7294
INST ID: 53492
Facility Name: Stockton Ordnance Depot
City: STOCKTON
State: CA
EPA Region: 9

STOCKTON ORDNANCE DEPOT (Continued) **1007211886**

County: SAN JOAQUIN
Congressional District: 18
US Army District: Sacramento District (SPK)
Fiscal Year: 2009
Telephone: 916-557-7461
NPL Status: Not Listed
RAB: Not reported
CTC: Not reported
Current Owner: CITY

FUDS Description Details:

The Stockton Ordnance Depot was located in Stockton, California, 83 miles east of San Francisco and 48 miles south of Sacramento on the south bank of the Stockton Deep Water Channel. This property was also known as the Stockton Airfield. The Stockton
n Ordnance Depot (SOD) was also known as the Quartermaster Motor Depot, Stockton Motor Repair Depot, Stockton Ordnance Base, Stockton Sub-Depot of Benecia Arsenal, Sharpe General Depot, Stockton Annex, and Stockton Storage Activity.

FUDS History Details:

The property was acquired by lease from the City of Stockton on 21 July 1941 and used as an advanced training center for the U.S. Army Air Corps. In 1946, most of the site was declared surplus by the Army and returned to the City of Stockton and Coun
nty of San Joaquin. In 1948, the Army returned the rest of Stockton Field with the exception of Sharp General Depot. In 1973, Sharp General Depot was vacated, ending DoD presence at Stockton Field. Military munitions were produced or demilitarized at
t this location and therefore may present an explosive hazard.

FUDS Current Program Details:

FUDS Future Program Details:

K155 **STOCKTON AREA MS4 STORMWATER** **WDS** **S105256648**
ESE **METROPOLITAN AREA STORMWATER** **NPDES** **N/A**
1/2-1 **STOCKTON, CA 95206** **Cortese**
0.590 mi.
3117 ft. **Site 3 of 3 in cluster K**

Relative:
Lower

Actual:
6 ft.

CA WDS:
Facility ID: Sacramento-San Joaquin Delta 396000001
Facility Type: Municipal/Domestic - Facility that treats sewage or a mixture of predominantly sewage and other waste from districts, municipalities, communities, hospitals, schools, and publicly or privately owned systems (excluding individual subsurface leaching systems disposing of less than 1,000 gallons per day).
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS083470 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 0
Facility Telephone: 2099378700
Facility Contact: BOB MURDOCH
Agency Name: STOCKTON CITY OF
Agency Address: 2500 NAVY DR

STOCKTON AREA MS4 STORMWATER (Continued) **S105256648**

Agency City,St,Zip:	STOCKTON 95206
Agency Contact:	MARK L MADISON
Agency Telephone:	2099378700
Agency Type:	City
SIC Code:	9199
SIC Code 2:	Not reported
Primary Waste:	Stormwater Runoff
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The POTW Does not have an approved pretreatment program. Some POTWs may have local pretreatment programs that have not been approved by the regional board and/or EPA.
Treat To Water:	Major Threat to Water Quality. A violation could render unusable a ground water or surface water resource used as a significant drink water supply, require closure of an area used for contact recreation, result in long-term deleterious effects on shell fish spawning or growth areas of aquatic resources, or directly expose the public to toxic substances.
Complexity:	Category A - Any major NPDES facility, any non-NPDES facility (particularly those with toxic wastes) that would be a major if discharge was made to surface or ground waters, or any Class I disposal site. Includes any small-volume complex facility (particularly those with toxicwastes) with numerous discharge points, leak detection systems or ground water monitoring wells.

NPDES:

Npdes Number:	Not reported
Facility Status:	Active
Agency Id:	42240
Region:	5S
Regulatory Measure Id:	194801
Order No:	R5-2007-0173
Regulatory Measure Type:	Enrollee
Place Id:	258704
WDID:	5B396000001
Program Type:	MNSTW1
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	12/6/2007
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Stockton City
Discharge Address:	2500 Navy Drive
Discharge City:	Stockton
Discharge State:	CA
Discharge Zip:	95206

Cortese:

Region:	CORTESE

STOCKTON AREA MS4 STORMWATER (Continued) **S105256648**

Envirostor Id:	Not reported
Site/Facility Type:	Not reported
Cleanup Status:	Not reported
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
EPA Id:	Not reported
Owner:	Stockton City
Enf Type:	CAO
Effective Date:	5/14/2003
Order No:	R5-2003-0706
Region:	5S
WDID:	5B396000001
Swat R:	Not reported
Waste Discharger System Num:	Not reported
Solid Waste Id Num:	Not reported
Waste Management Unit Name:	Not reported
Agency Name:	Not reported

156
ESE
1/2-1
0.621 mi.
3278 ft.

KOK REALTY
2403 NAVY DR
STOCKTON, CA 95206

HIST CORTESE **S102432271**
LUST **N/A**

Relative:
Lower

Actual:
7 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	39
Reg By:	LTNKA
Reg Id:	390112

LUST:

Region:	STATE
Global Id:	T0607700083
Latitude:	37.9377043
Longitude:	-121.3241697
Case Type:	LUST Cleanup Site
Status:	Open - Site Assessment
Status Date:	1995-07-07 00:00:00
Lead Agency:	SAN JOAQUIN COUNTY LOP
Case Worker:	HAR
Local Agency:	SAN JOAQUIN COUNTY LOP
RB Case Number:	390112
LOC Case Number:	2023
File Location:	Local Agency
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Heating Oil / Fuel Oil, Gasoline
Site History:	A soil and ground water investigation performed. Ground water concentrations continues to decrease. Vertical extent of contamination and vapor instruction study not completed.

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0607700083
Contact Type:	Regional Board Caseworker
Contact Name:	JAMES BARTON

KOK REALTY (Continued) **S102432271**

Organization Name: CENTRAL VALLEY RWQCB (REGION 5S)
Address: 11020 SUN CENTER DRIVE #200
City: RANCHO CORDOVA
Email: jbarton@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0607700083
Contact Type: Local Agency Caseworker
Contact Name: HARLIN KNOLL
Organization Name: SAN JOAQUIN COUNTY LOP
Address: 600 E. MAIN STREET
City: STOCKTON
Email: hknoll@sjcehd.com
Phone Number: Not reported

LUST:

Global Id: T0607700083
Action Type: ENFORCEMENT
Date: 2009-03-31 00:00:00
Action: Technical Correspondence / Assistance / Other - #03/31/2009

Global Id: T0607700083
Action Type: ENFORCEMENT
Date: 2008-11-03 00:00:00
Action: File review

Global Id: T0607700083
Action Type: ENFORCEMENT
Date: 2011-04-15 00:00:00
Action: Technical Correspondence / Assistance / Other

Global Id: T0607700083
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Began

Global Id: T0607700083
Action Type: ENFORCEMENT
Date: 2010-10-20 00:00:00
Action: Technical Correspondence / Assistance / Other

Global Id: T0607700083
Action Type: ENFORCEMENT
Date: 2010-12-20 00:00:00
Action: File review

Global Id: T0607700083
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Discovery

Global Id: T0607700083
Action Type: Other
Date: 1950-01-01 00:00:00
Action: Leak Reported

Global Id: T0607700083

KOK REALTY (Continued) **S102432271**

Action Type:	Other
Date:	1950-01-01 00:00:00
Action:	Leak Stopped
Global Id:	T0607700083
Action Type:	ENFORCEMENT
Date:	2008-07-15 00:00:00
Action:	Technical Correspondence / Assistance / Other - #07/15/2008
Global Id:	T0607700083
Action Type:	ENFORCEMENT
Date:	2010-06-10 00:00:00
Action:	File review
Global Id:	T0607700083
Action Type:	ENFORCEMENT
Date:	2010-02-16 00:00:00
Action:	File review
Global Id:	T0607700083
Action Type:	ENFORCEMENT
Date:	1989-08-15 00:00:00
Action:	Notice of Reimbursement
Global Id:	T0607700083
Action Type:	ENFORCEMENT
Date:	2009-07-27 00:00:00
Action:	Technical Correspondence / Assistance / Other

LUST REG 5:

Region:	5
Status:	Preliminary site assessment workplan submitted
Case Number:	390112
Case Type:	Drinking Water Aquifer affected
Substance:	Not reported
Staff Initials:	JLB
Lead Agency:	Local
Program:	LUST
MTBE Code:	3

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157 WNW 1/2-1 0.623 mi. 3287 ft. | **GENERAL SERVICES ADMINISTRATION**
ROUGH AND READY ISLAND BUILDING 414
STOCKTON, CA 95203 | **CERCLIS** **1000214035**
RCRA-SQG **CA7690506863**
FINDS
HAZNET

Relative: Lower

Actual: 6 ft.

CERCLIS:

Site ID:	0903427
EPA ID:	CA7690506863
Facility County:	SAN JOAQUIN
Short Name:	GENERAL SERVICES ADMINIST
Congressional District:	14
IFMS ID:	Not reported
SMSA Number:	8120
USGC Hydro Unit:	18040004
Federal Facility:	Federal Facility

GENERAL SERVICES ADMINISTRATION (Continued) **1000214035**

DMNSN Number: Not reported
Site Orphan Flag: N
RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 09
Classification: Not reported
Site Settings Code: Not reported
NPL Status: Not on the NPL
DMNSN Unit Code: Not reported
RBRAC Code: Not reported
RResp Fed Agency Code: GSAA
Non NPL Status: Fed Fac Site Inspection Review Start Needed
Non NPL Status Date: 20060714
Site Fips Code: 06077
CC Concurrence Date: Not reported
CC Concurrence FY: Not reported
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):
Contact ID: 9271184.00000
Contact Name: Karen Jurist
Contact Tel: (415) 972-3219
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 9270048.00000
Contact Name: Jeff Inglis
Contact Tel: (415) 972-3095
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13002167.00000
Contact Name: Carl Brickner
Contact Tel: (415) 972-3814
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 9270438.00000
Contact Name: Dawn Richmond
Contact Tel: (415) 972-3097
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):
Alias ID: 9270289
Alias Name: STOCKTON
Alias Address: ROUGH & READY ISLAND BLDG 414
STOCKTON, CA 95376-5000
Alias Comments: Not reported
Site Description: Not reported

GENERAL SERVICES ADMINISTRATION (Continued) **1000214035**

CERCLIS Assessment History:

Action Code:	001
Action:	DISCOVERY
Date Started:	Not reported
Date Completed:	05/01/1988
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Facilities
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	PRELIMINARY ASSESSMENT
Date Started:	Not reported
Date Completed:	06/08/1992
Priority Level:	Higher priority for further assessment
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Facilities
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Click this hyperlink while viewing on your computer to access additional US CERCLIS Financial: detail in the EDR Site Report.

RCRA-SQG:

Date form received by agency:	03/16/2004
Facility name:	GENERAL SERVICES ADMINISTRATION
Facility address:	BLDG 312, ROUGH & READY ISLAND STOCKTON, CA 95203
EPA ID:	CA7690506863
Mailing address:	BLDG 312 ROUGH & READY ISLAND STOCKTON, CA 95203
Contact:	MARIO ALONZO
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	(209) 547-8601
Contact email:	MARIA.ALONZO@GSA.GOV
EPA Region:	09
Land type:	State
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

GENERAL SERVICES ADMINISTRATION (Continued) **1000214035**

Owner/Operator Summary:

Owner/operator name:	GENERL SERVICE ADMINISTRATION
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Federal
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1963
Owner/Op end date:	Not reported

Owner/operator name:	PORT OF STOCKTON
Owner/operator address:	PORT OF STOCKTON
	STOCKTON, CA 95203
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	State
Owner/Operator Type:	Owner
Owner/Op start date:	06/01/1999
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	03/16/2004
Facility name:	GENERAL SERVICES ADMINISTRATION
Classification:	Large Quantity Generator

Date form received by agency:	02/08/2002
Facility name:	GENERAL SERVICES ADMINISTRATION
Site name:	GENERAL SERVICES ADMINISTRATION, WESTERN
Classification:	Large Quantity Generator

Date form received by agency:	10/12/2000
Facility name:	GENERAL SERVICES ADMINISTRATION
Classification:	Large Quantity Generator

Date form received by agency:	03/04/1999
Facility name:	GENERAL SERVICES ADMINISTRATION
Classification:	Large Quantity Generator

GENERAL SERVICES ADMINISTRATION (Continued) **1000214035**

Date form received by agency: 09/01/1996
Facility name: GENERAL SERVICES ADMINISTRATION
Site name: USGSA FSS
Classification: Not a generator, verified

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 03/15/1985
Date achieved compliance: 12/11/1985
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/15/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 12/11/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/15/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 12/11/1985
Evaluation lead agency: State

FINDS:

Registry ID: 110013822266

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The

GENERAL SERVICES ADMINISTRATION (Continued) **1000214035**

system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

HAZNET:

Year:	2002
Gepaid:	CA7690506863
Contact:	MARIO ALONZO ENVT'L ENGR TECH
Telephone:	2099466349
Mailing Name:	Not reported
Mailing Address:	BLDG 414 ROUGH & READY ISLAND
Mailing City,St,Zip:	STOCKTON, CA 952030000
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	D99
Tons:	0.05
Facility County:	Not reported

Year:	2002
Gepaid:	CA7690506863
Contact:	MARIO ALONZO ENVT'L ENGR TECH
Telephone:	2099466349
Mailing Name:	Not reported
Mailing Address:	BLDG 414 ROUGH & READY ISLAND
Mailing City,St,Zip:	STOCKTON, CA 952030000
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	Los Angeles
Waste Category:	Other inorganic solid waste
Disposal Method:	D99
Tons:	0.07
Facility County:	Not reported

Year:	2002
Gepaid:	CA7690506863
Contact:	MARIO ALONZO ENVT'L ENGR TECH
Telephone:	2099466349
Mailing Name:	Not reported
Mailing Address:	BLDG 414 ROUGH & READY ISLAND
Mailing City,St,Zip:	STOCKTON, CA 952030000
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	Los Angeles
Waste Category:	Alkaline solution without metals pH >= 12.5
Disposal Method:	D99
Tons:	0.02
Facility County:	Not reported

Year:	2002
Gepaid:	CA7690506863
Contact:	MARIO ALONZO ENVT'L ENGR TECH
Telephone:	2099466349
Mailing Name:	Not reported
Mailing Address:	BLDG 414 ROUGH & READY ISLAND

GENERAL SERVICES ADMINISTRATION (Continued) **1000214035**

Mailing City,St,Zip:	STOCKTON, CA 952030000
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	Sacramento
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	H01
Tons:	0.86
Facility County:	Not reported

Year:	2002
Gepaid:	CA7690506863
Contact:	MARIO ALONZO ENVT'L ENGR TECH
Telephone:	2099466349
Mailing Name:	Not reported
Mailing Address:	BLDG 414 ROUGH & READY ISLAND
Mailing City,St,Zip:	STOCKTON, CA 952030000
Gen County:	San Joaquin
TSD EPA ID:	Not reported
TSD County:	99
Waste Category:	Waste oil and mixed oil
Disposal Method:	R01
Tons:	0.45
Facility County:	Not reported

Click this hyperlink while viewing on your computer to access
129 additional CA_HAZNET: record(s) in the EDR Site Report.

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158 ENE 1/2-1 0.666 mi. 3518 ft. | **METROPOLITAN CALIFORNIA STEVEDORE CO** | **WDS** **S100182607**
PORT OF STOCKTON | **NPDES** **N/A**
STOCKTON, CA 95201 | **SLIC**
CHMIRS
HAZNET

Relative: Higher

Actual: 8 ft.

CA WDS:

Facility ID:	5S 39I015290
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2095479100
Facility Contact:	DANIEL SPEERS
Agency Name:	STEVEDORING SERVICES AMERICA
Agency Address:	2321 W Washington St Ste H
Agency City,St,Zip:	Stockton 952032948
Agency Contact:	DANIEL SPEERS
Agency Telephone:	2095479100
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Facility ID:	5S 39I016045
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2094666927
Facility Contact:	PHIL E COPPLE
Agency Name:	CENTRAL CALIFORNIA TRACTION CO
Agency Address:	2201 W Washington St Ste 12
Agency City,St,Zip:	Stockton 952032990
Agency Contact:	PHIL E COPPLE
Agency Telephone:	2094666927
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I016045
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A
Effective Date Of Regulatory Measure:	8/25/2000
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Central California Traction Co
Discharge Address:	2201 W Washington St Ste 12
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95203

SLIC:

Region:	5
Facility Status:	Preliminary Assessment
Unit:	Facility is a Spill or site
Pollutant:	VOC, acetone, sulfate
Lead Agency:	Not reported
Date Filed:	04/14/03
Report Date:	08/12/03
Date Added:	Not reported
Date Closed:	Not reported

CHMIRS:

OES Incident Number:	99-0691
OES notification:	2/12/199905:46:01 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	None needed
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1999
Agency:	UPRR
Incident Date:	2/12/199912:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Rail Road
E Date:	Not reported
Substance:	N/A
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	A load of phosphoric acid was derailed during a switch The cars remained upright and there was no spill.

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

OES Incident Number:	02-6248
OES notification:	11/15/200203:35:08 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Sacramento Delta
Spill Site:	Not reported
Cleanup By:	none necessary
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2002
Agency:	NRC
Incident Date:	11/15/200212:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Waterways
E Date:	Not reported
Substance:	hydraulic oil
Quantity Released:	Not reported

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	2
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Per the NRC report the caller is reporting material released from a convair belt unit due to a leak on the hydraulic cylinder. There is a rainbow sheen 2-feet by 2-feet. It will dissipate naturally. Repairs made.
OES Incident Number:	06-5705
OES notification:	9/25/2006 08:00:15 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Port of Stockton, at the head of Old Mormon Slough
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Army Corp of Enginners
Incident Date:	9/25/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Ship/Harbor/Port
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	1
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Caller states that a barge sank, residual fuel from the bilge as created a sheen on the water. Oil boom will be around it in one hour.
OES Incident Number:	97-0054
OES notification:	1/5/199710:58:29 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Unknown
Waterway:	Port of Stockton
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1997
Agency:	POSDEF Power Co, LP
Incident Date:	1/1/199712:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Unknown
Site Type:	Industrial Plant
E Date:	Not reported
Substance:	Coal
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	20
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Power Plant transfering coal via conveyor from storage silo to

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

day-bin during heavy rains, spilled onto ground, possible some product into waterway but u/k quantity. Clean-up operations begun, product recovered & reused.

OES Incident Number:	06-1870
OES notification:	3/30/2006 09:26:29 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	San Joaquin River
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	NRC
Incident Date:	3/28/2006 12:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Site Type:	Waterways
E Date:	Not reported
Substance:	No. 2-D
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	.5
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	HISTORICAL REPORT Per NRC report: "Due to a valve that was left open on a return line on a tug diesel released through the scupper into the water." REMEDIAL ACTIONS: "Absorbent pads were used for clean up." Not reported
OES Incident Number:	9099175
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	03-MAY-90
Date Completed:	**03-MAY-90**
Property Use:	600
Agency Id Number:	39065
Agency Incident Number:	13143
Time Notified:	1338
Time Completed:	1650
Surrounding Area:	600
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	1
Others Number Of Fatalities:	0
Vehicle Make/year:	RXR TANK CAR
Vehicle License Number:	UTLX803567
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Company Name:	Not reported
Reporting Officer Name/ID:	CAPT. M. HALSEY
Report Date:	04-MAY-90
Comments:	Y
Facility Telephone:	209 944-8272
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	Not reported
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	13-MAY-91
Substance:	Not reported
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
Description:	Not reported
OES Incident Number:	9120418
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	12-NOV-91
Date Completed:	**12-NOV-91**
Property Use:	800
Agency Id Number:	39065
Agency Incident Number:	36950
Time Notified:	920
Time Completed:	1115
Surrounding Area:	942
Estimated Temperature:	Not reported
Property Management:	P

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	0
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	CAPT. HALSEY
Report Date:	12-NOV-91
Comments:	Y
Facility Telephone:	209 944-8272
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	Not reported
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	18-AUG-92
Substance:	Not reported
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	Not reported

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Number of Injuries:	Not reported
Number of Fatalities:	Not reported
Description:	Not reported
OES Incident Number:	03-0745
OES notification:	2/9/200301:00:50 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Port of Stockton
Spill Site:	Not reported
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2003
Agency:	Stockton Fire Dept.
Incident Date:	2/9/200312:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Unknown

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Site Type:	Ship/Harbor/Port
E Date:	Not reported
Substance:	Bunker Oil
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	The oil spilled from ship named Gaz Baltic for unknown reason. The area has been boomed off.
OES Incident Number:	27880
OES notification:	Not reported
OES Date:	5/4/1993
OES Time:	11:15:00 PM
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1993
Agency:	southern pacific
Incident Date:	10:15
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	Not reported
Substance:	4 cars derailed -upright-
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
Description:	all full of anhydrous ammonia no spill no leak
OES Incident Number:	97-4978
OES notification:	12/16/199711:31:34 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Stockton Deep Water Channel
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1997
Agency:	USCG - Concord
Incident Date:	12/16/199712:00:00 AM
Admin Agency:	San Joaquin County Emergency Services
Amount:	Not reported
Contained:	Yes
Site Type:	Ship/Harbor/Port
E Date:	Not reported
Substance:	unk
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0

METROPOLITAN CALIFORNIA STEVEDORE CO (Continued) **S100182607**

Description: Tug boat pumped bildges and left sheen 20 yds x 30 yds. Source has been secured. Area is boomed.

HAZNET:

Year:	1994
Gepaid:	CAC000717544
Contact:	NORMAN HAUSER
Telephone:	4156957555
Mailing Name:	Not reported
Mailing Address:	P O BOX 986
Mailing City,St,Zip:	STOCKTON, CA 952010000
Gen County:	San Joaquin
TSD EPA ID:	CAD000088252
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Not reported
Tons:	.2500
Facility County:	San Joaquin

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159 ENE 1/2-1 0.734 mi. 3873 ft. | **RECOLOGY STOCKTON PORT 23 PORT OF STOCKTON STOCKTON, CA** | **SWF/LF** | **S105964631 N/A**

Relative: Lower

Actual: 7 ft.

SWF/LF (SWIS):

Region:	STATE
Facility ID:	39-AA-0045
Lat/Long:	37.94352 / -121.32172
Owner Name:	Port of Stockton / City of Stockton
Owner Telephone:	2094631067
Owner Address:	Not reported
Owner Address2:	2201 West Washington Street
Owner City,St,Zip:	Stockton, CA 95203
Operator:	Recology Stockton
Operator Phone:	2094631067
Operator Address:	Eric Horton
Operator Address2:	50 California St., 24th Floor
Operator City,St,Zip:	San Francisco, CA 94111
Operator's Status:	Active
Permit Date:	12/11/2007
Permit Status:	Permitted
Permitted Acreage:	Cubic Yard
Activity:	Chipping and Grinding Activity Fac./ Op.
Regulation Status:	Permitted
Landuse Name:	Not reported
GIS Source:	Map
Category:	Composting
Unit Number:	02
Inspection Frequency:	Quarterly
Accepted Waste:	Green Materials,Wood waste
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	4.5
SWIS Num:	39-AA-0045
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported

RECOLOGY STOCKTON (Continued) **S105964631**

Permitted Throughput with Units: Not reported
Actual Throughput with Units: 200
Permitted Capacity with Units: Tons/day
Remaining Capacity: Not reported
Remaining Capacity with Units: 12500

Region: STATE
Facility ID: 39-AA-0045
Lat/Long: 37.94352 / -121.32172
Owner Name: Port of Stockton / City of Stockton
Owner Telephone: 2094631067
Owner Address: Not reported
Owner Address2: 2201 West Washington Street
Owner City,St,Zip: Stockton, CA 95203
Operator: Recology Stockton
Operator Phone: 2094631067
Operator Address: Eric Horton
Operator Address2: 50 California St., 24th Floor
Operator City,St,Zip: San Francisco, CA 94111
Operator's Status: Active
Permit Date: 12/11/2007
Permit Status: Permitted
Permitted Acreage: Cubic Yard
Activity: Large Volume Transfer/Proc Facility
Regulation Status: Permitted
Landuse Name: Not reported
GIS Source: Map
Category: Transfer/Processing
Unit Number: 03
Inspection Frequency: Monthly
Accepted Waste: Mixed municipal
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: 2.5
SWIS Num: 39-AA-0045
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: 500
Permitted Capacity with Units: Tons/day
Remaining Capacity: Not reported
Remaining Capacity with Units: 35000

Region: STATE
Facility ID: 39-AA-0045
Lat/Long: 37.94352 / -121.32172
Owner Name: Port of Stockton / City of Stockton
Owner Telephone: 2094631067
Owner Address: Not reported
Owner Address2: 2201 West Washington Street
Owner City,St,Zip: Stockton, CA 95203
Operator: Recology Stockton
Operator Phone: 2094631067
Operator Address: Eric Horton
Operator Address2: 50 California St., 24th Floor
Operator City,St,Zip: San Francisco, CA 94111
Operator's Status: Active

RECOLOGY STOCKTON (Continued) **S105964631**

Permit Date:	12/11/2007
Permit Status:	Permitted
Permitted Acreage:	Cubic Yard
Activity:	Inert Debris Type A Proc. Operation
Regulation Status:	Permitted
Landuse Name:	Not reported
GIS Source:	Map
Category:	Transfer/Processing
Unit Number:	04
Inspection Frequency:	Quarterly
Accepted Waste:	Inert
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	7
SWIS Num:	39-AA-0045
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	1500
Permitted Capacity with Units:	Tons/day
Remaining Capacity:	Not reported
Remaining Capacity with Units:	200000

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160 NE 1/2-1 0.827 mi. 4364 ft.

NAMOLCO INC
PORT ROAD
STOCKTON, CA 95201

HIST Cal-Sites **S101482652**
RESPONSE **N/A**
ENVIROSTOR

Relative: Higher

Actual: 11 ft.

HISTORICAL CAL-SITES:

Facility ID:	50510026
Region:	1
Region Name:	SACRAMENTO
Branch:	CC
Branch Name:	CENTRAL CALIFORNIA
File Name:	Not reported
State Senate District:	02011983
Status:	CERT - CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name:	CERTIFIED
Lead Agency:	Not reported
Lead Agency:	N/A
Facility Type:	RP
Type Name:	RESPONSIBLE PARTY
NPL:	Not Listed
SIC Code:	51
SIC Name:	WHOLESALE TRADE - NONDURABLE GOODS
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Not reported
Staff Member Responsible for Site:	Not reported
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	Not reported
Region Water Control Board Name:	Not reported
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0

NAMOLCO INC (Continued) **S101482652**

Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	26
State Senate District Code:	05
Facility ID:	50510026
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02011983
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	50510026
Activity:	SS
Activity Name:	SITE SCREENING
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12301987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	PORT ROAD "A"
Alternate City,St,Zip:	STOCKTON, CA 95201
Alternate Address:	PORT ROAD
Alternate City,St,Zip:	STOCKTON, CA 95201
Background Info:	Not reported

NAMOLCO INC (Continued) **S101482652**

Comments Date: 12301987
Comments: Site Screening Done: Clean-up completed in February 1983.
Comments Date: 12301987
Comments: Site Certified. No Further Action needed.
ID Name: Not reported
ID Value: Not reported
Alternate Name: NAMOLCO INC
Special Programs Code: Not reported
Special Programs Name: Not reported

RESPONSE:
Facility ID: 50510026
Site Type: State Response
Site Type Detail: State Response or NPL
Acres: 1
National Priorities List: NO
Cleanup Oversight Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Lead Agency Description: Not reported
Project Manager: Not reported
Supervisor: Steven Becker
Division Branch: Cleanup Sacramento
Site Code: Not reported
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 26
Senate: 05
Special Program Status: Not reported
Status: Certified
Status Date: 1983-02-01 00:00:00
Restricted Use: NO
Funding: Responsible Party
Latitude: 37.991799999999998
Longitude: -121.3104
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - LIVESTOCK
Potential COC: 10120, 30461
Confirmed COC: 30461
Potential Description: SOIL
Alias Name: 110033605187
Alias Type: EPA (FRS #)
Alias Name: 50510026
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1987-12-30 00:00:00
Comments: Site Screening Done: Clean-up completed in February 1983. Site Certified. No Further Action needed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 1983-02-01 00:00:00
Comments: Not reported

NAMOLCO INC (Continued) **S101482652**

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 1
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Steven Becker
Division Branch: Cleanup Sacramento
Facility ID: 50510026
Site Code: Not reported
Assembly: 26
Senate: 05
Special Program: Not reported
Status: Certified
Status Date: 1983-02-01 00:00:00
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.991799999999998
Longitude: -121.3104
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - LIVESTOCK
Potential COC: 10120, 30461
Confirmed COC: 30461
Potential Description: SOIL
Alias Name: 110033605187
Alias Type: EPA (FRS #)
Alias Name: 50510026
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1987-12-30 00:00:00
Comments: Site Screening Done: Clean-up completed in February 1983. Site Certified. No Further Action needed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 1983-02-01 00:00:00
Comments: Not reported

Future Area Name: Not reported

NAMOLCO INC (Continued) **S101482652**

Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

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161 ENE 1/2-1 0.920 mi. 4856 ft. | **CAL-FARM SUPPLY COMPANY**
2040 W WASHINGTON
STOCKTON, CA 95203 | **CA FID UST**
SWEEPS UST
ENVIROSTOR | **S101592786**
N/A

Relative: Lower

Actual: 7 ft.

CA FID UST:

Facility ID:	39000367
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2099436111
Mail To:	Not reported
Mailing Address:	2040 W WASHINGTON
Mailing Address 2:	Not reported
Mailing City,St,Zip:	STOCKTON 95203
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SWEEPS UST:

Status:	Not reported
Comp Number:	1279
Number:	Not reported
Board Of Equalization:	44-024620
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001279-000001
Actv Date:	Not reported
Capacity:	2000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	DIESEL
Number Of Tanks:	1

ENVIROSTOR:

Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	1
NPL:	NO

CAL-FARM SUPPLY COMPANY (Continued) **S101592786**

Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Sacramento
Facility ID: 39280039
Site Code: Not reported
Assembly: 17
Senate: 05
Special Program: Not reported
Status: Refer: RWQCB
Status Date: 1991-09-18 00:00:00
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 37.945015411157698
Longitude: -121.319711222359
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: SLT5S0113056
Alias Type: GeoTracker Global ID
Alias Name: T0607700377
Alias Type: GeoTracker Global ID
Alias Name: 39280039
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1991-09-18 00:00:00
Comments: Site Screening (SS) completed. CVRWQCB oversaw the removal of pesticide contaminated soils. 2-4 feet were removed and clean fill applied. Confirmation sampling showed a hot spot of DDT around 2 ppm. RWQCB or San Joaquin County will be overseeing the Underground Storage Tank (UST) removal. Recommend other agency lead.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 1987-09-24 00:00:00
Comments: Complaint received by Surveyillance and Enforcement (IS&E) regarding soil contamination at the site. TPH & DDT detected. Company in bankruptcy.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

162
NW
1/2-1
0.991 mi.
5234 ft.

STOCKTON NAVAL COMMUNICATION STATION
1,459 ACRE ISLAND; 40MI SE OF SACRAMENTO
STOCKTON, CA 95203

HIST Cal-Sites
Cortese
HIST CORTESE
RESPONSE
ENVIROSTOR

S101272870
N/A

Relative:
Higher

Actual:
11 ft.

HISTORICAL CAL-SITES:

Facility ID:	39970004
Region:	1
Region Name:	SACRAMENTO
Branch:	NO
Branch Name:	OMF-NORTHERN CALIF
File Name:	Not reported
State Senate District:	05011986
Status:	AWP - ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name:	ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency:	DTSC
Lead Agency:	DEPT OF TOXIC SUBSTANCES CONTROL
Facility Type:	CLOSE
Type Name:	CLOSED MILITARY BASE
NPL:	Not Listed
SIC Code:	97
SIC Name:	NATIONAL SECURITY/INTERNATIONAL AFFAIRS
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Confirmed
Staff Member Responsible for Site:	JSALCEDO
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	CV
Region Water Control Board Name:	CENTRAL VALLEY
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	INTERSECTION OF EMBARCADERO & REID DRIVE
State Assembly District Code:	17
State Senate District Code:	05
Facility ID:	39970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	6SITE
Proposed Budget:	0
AWP Completion Date:	06251996
Revised Due Date:	Not reported
Comments Date:	06251996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	4920
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	CONDUCTED 6 INTERIM REMOVAL ACTIONS.
For Commercial Reuse:	0

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	5SAC
Proposed Budget:	0
AWP Completion Date:	07012006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	FOSET
Activity Name:	FINDING OF SUITABILITY FOR EARLY TRANSFER
AWP Code:	PHSE3
Proposed Budget:	0
AWP Completion Date:	06302003
Revised Due Date:	Not reported
Comments Date:	06302003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	PHSII
Proposed Budget:	0
AWP Completion Date:	10172001

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Revised Due Date:	Not reported
Comments Date:	10172001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	CAT13
Proposed Budget:	0
AWP Completion Date:	06021999
Revised Due Date:	Not reported
Comments Date:	06021999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	CAT13
Proposed Budget:	0
AWP Completion Date:	01202000
Revised Due Date:	Not reported
Comments Date:	01202000
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	CERFA
Activity Name:	COMMUNITY ENVIRONMENTAL RESPONSE FACILITATION ACT
AWP Code:	G0
Proposed Budget:	0
AWP Completion Date:	04301998
Revised Due Date:	Not reported
Comments Date:	04301998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	S2345
Proposed Budget:	0
AWP Completion Date:	12091998
Revised Due Date:	Not reported
Comments Date:	12091998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Facility ID:	39970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE
AWP Code:	P114+
Proposed Budget:	0
AWP Completion Date:	09191997
Revised Due Date:	Not reported
Comments Date:	09191997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE
AWP Code:	56PCL
Proposed Budget:	0
AWP Completion Date:	05021997
Revised Due Date:	Not reported
Comments Date:	05021997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	DUPLI
Proposed Budget:	0
AWP Completion Date:	05021997
Revised Due Date:	Not reported
Comments Date:	05021997
Est Person-Yrs to complete:	0

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	100P
Proposed Budget:	0
AWP Completion Date:	05021997
Revised Due Date:	Not reported
Comments Date:	05021997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	BWEBS
Activity Name:	BASEWIDE ENVIRONMENTAL BASELINE SURVEY
AWP Code:	STKTN
Proposed Budget:	0
AWP Completion Date:	05021997
Revised Due Date:	Not reported
Comments Date:	05021997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	5EH
Proposed Budget:	0
AWP Completion Date:	12051997
Revised Due Date:	Not reported
Comments Date:	12051997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	DDT
Proposed Budget:	0
AWP Completion Date:	03301998
Revised Due Date:	Not reported
Comments Date:	03301998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	RA
Activity Name:	REMOVAL ACTION

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

AWP Code:	SUMPS
Proposed Budget:	0
AWP Completion Date:	01121999
Revised Due Date:	Not reported
Comments Date:	01121999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	34
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	SUMPS
Proposed Budget:	0
AWP Completion Date:	06251996
Revised Due Date:	Not reported
Comments Date:	06251996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	BASWD
Proposed Budget:	0
AWP Completion Date:	03191998
Revised Due Date:	Not reported
Comments Date:	03191998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	810
Proposed Budget:	0
AWP Completion Date:	04151992
Revised Due Date:	Not reported
Comments Date:	04151992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	145
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	CONTAMINATED SOIL REMOVED AND PROPERLY TRANSPORTED TO A DISPOSAL SITE.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	FRIFS
Activity Name:	FOCUSED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AWP Code:	810
Proposed Budget:	0
AWP Completion Date:	02281991
Revised Due Date:	Not reported
Comments Date:	02281991
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	SS
Activity Name:	SITE SCREENING
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	02091987
Revised Due Date:	Not reported
Comments Date:	02091987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	NAVY
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07302003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	5EH
Proposed Budget:	0
AWP Completion Date:	Not reported

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Revised Due Date:	Not reported
Comments Date:	12051997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	SUMPS
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06251996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39970004
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06101994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Alternate Address: 1,459 ACRE ISLAND; 40MI SE OF SACRAMENTO
Alternate City,St,Zip: STOCKTON, CA 95203
Alternate Address: ROUGH & READY ISLAND
Alternate City,St,Zip: STOCKTON, CA 95203
Background Info: The Naval Communications Station, Stockton, (NAVCOMM) occupies 1, 459 acres of Rough and Ready Island. The Island is bounded by th e San Joaquin River and lies to the west of the City of Stockton, California. As part of the 1980 Preliminary investigation init iated in 1980, the Navy identified environmental issues which req uired further investigation. Areas of the NAVCOMM identified inc luded: 1) The former Landfill and Burn Dump Ground. This area is within the western portion of Rough and Ready Island and inclu des wild- life habitat. Landfills have been identified in this p ortion of the Island where suspect waste oils, pesticides, chlori nated solvents and non-chlorinated solvents may have been dispose d. 2) Battery Acid Disposal Area: Until the late 1970s, waste batteries were drained onto the soil to the north of Building 816 B. 3) Fire Fighting Area: From 1950 to 1978, fires were starte d for training purposes by igniting waste fuels in either of two above ground tanks or in an open unlined pit. 4) General Servic e Administration (GSA) Damage Container Storage Area: From 1972 to 1983, a fenced asphalt pad was used to store leaking and damag ed containers, which included paints, thinners, solvents, lacquer s, and dichlorodiphenyltrichloroethane (DDT). Both the pad and so il surrounding the pad are heavily stained. 5) Pesticide storag e building, sumps, maintenance pits, waste oil tanks, storm drain s, and an inactive wastewater treatment plant. In February 1996 , Under Public Law 104-160, Section 2871, Congres passed special legislation which transfers the NAVCOMM property and assets to th e Port of Stockton for re-use as a maritime facility. With the p assage of this legislation and the Navy's reassignment of tasks, the facility command and name was changed to the Naval Computer a nd Telecommunications Station (NTCS) San Diego, Detachment Stockt on. To expedite re-use of the property and comply with environm ental clean up requirements, the site has completed an Environmen tal Baseline Survey (EBS). The document presents the environment al condition of all of NAVCOMM's Rough and Ready property. As p art of the EBS, the island (with the exception of 13 private- ly owned acres) was divided into 158 parcels slated to be trans- fer red. The parcel sizes were determined on the anticipated land us e, presence of known contamination and proximity to existing stru ctures.
Comments Date: 04221994
Comments: PEA - BASWD -- NCS Stockton has completed a Basewide
Comments Date: 04221994
Comments: PA/SI (PEA). DTSC approved the PEA on April 22, 1994.
Comments Date: 04221994
Comments: Thirty-six (36) sites were investigated; an additional

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Comments Date: 01111991
Comments: DHS received EPA FIT Federal Facility PA/SI Review. EPA
Comments Date: 01111991
Comments: recommendation is LSI 08/22/89.
Comments Date: 01121999
Comments: RA - SUMPS -- Remove debris and sediment from storm water catch b
Comments Date: 01121999
Comments: asins.
Comments Date: 01141979
Comments: Facility identified from RWQCB.
Comments Date: 01151979
Comments: RWQCB Inspection: Disposal in very close proximity to
Comments Date: 01151979
Comments: groundwater.
Comments Date: 01151982
Comments: HWPEU Superfund notified but no longer HWP. No disposal
Comments Date: 01151982
Comments: occurring currently.
Comments Date: 01202000
Comments: RAP - CAT13 -- NCS Stockton is located on 1459 acres of Rough and
Comments Date: 01202000
Comments: Ready Island. The Phase I Parcels are those parcels designated
Comments Date: 01202000
Comments: transferable as Categories 1 through 3. The Department of Toxic
Comments Date: 01202000
Comments: Substances Control Provided a letter of concurrence on the design
Comments Date: 01202000
Comments: ation of parcels under cover letter dated June 2, 1999.
Comments Date: 01251982
Comments: RWQCB: Island had II-1 dumpsite closed 6/79. ISD site
Comments Date: 01251982
Comments: handles reactives and corrosives.
Comments Date: 02091987
Comments: Site Screening Done: Mitre Model required.
Comments Date: 02281991
Comments: FRIFS: Building 810.
Comments Date: 03171998
Comments: The Navy preformed a PEA equivalent on thirty two potential sites
Comments Date: 03171998
Comments: to determine if these suspect areas warranted a remedial
Comments Date: 03171998
Comments: investigation under the Navy's Installations Restoration Program
Comments Date: 03171998
Comments: (IRP). DTSC concurred with the Navy on the recommendation that
Comments Date: 03171998
Comments: twenty one of these sites do not require further investigation
Comments Date: 03171998
Comments: and can removed from theIRP.
Comments Date: 03171998
Comments: Not reported
Comments Date: 03171998
Comments: Not reported
Comments Date: 03171998
Comments: Not reported
Comments Date: 04221994
Comments: 39 sites were identified from an aerial photo review and
Comments Date: 04221994

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Comments: geophysical survey. The additional sites will be
Comments Date: 04221994
Comments: investigated. Approximate cost = $1.6 million;
Comments Date: 04221994
Comments: funding = DERA.
Comments Date: 04301998
Comments: CERFA - G0 -- A Basewide Supplemental Environmental Baseline Surv
Comments Date: 04301998
Comments: ey (SEBS) was submitted to DTSC by the Navy for Naval Communicati
Comments Date: 04301998
Comments: on Stockton (NCS)-Stockton. The SEBS included the Navy's propose
Comments Date: 04301998
Comments: d lists of parcels that qualify for designation as Environmental
Comments Date: 04301998
Comments: Condition of Property (ECP) Categories 1 through 3. DTSC concurre
Comments Date: 04301998
Comments: d on the Navy's designation for several parcels. Other parcels we
Comments Date: 04301998
Comments: re re-categorized by DTSC. A table listing parcel designation and
Comments Date: 04301998
Comments: concurrence/non-concurrence is attached to DTSC's letter of Apri
Comments Date: 04301998
Comments: l 30, 1998.
Comments Date: 05011986
Comments: This is the date the site was first listed AWP pursuant to
Comments Date: 05011986
Comments: Section 25356.
Comments Date: 06021999
Comments: PEA - CAT13 -- Preliminary Endangerment Assessment for approximat
Comments Date: 06021999
Comments: ely 120 sites to determine if additional work is needed.
Comments Date: 06302003
Comments: FOSET - PHSE3 -- The FOSET was finalized on June 30, 2003. The pu
Comments Date: 06302003
Comments: blic comment period was from May 30-June 28, 2003. All comments w
Comments Date: 06302003
Comments: ere addressed.
Comments Date: 07071982
Comments: Questionnaire sent.
Comments Date: 07231982
Comments: Letter from USN regarding current disposal but no info on
Comments Date: 07231982
Comments: past disposal of wastes.
Comments Date: 07251991
Comments: Contaminants are PCBs, VOC, battery acid, paint degradation
Comments Date: 07251991
Comments: products, heavy metals, petroleum products, TCE, TCA, PCE,
Comments Date: 07251991
Comments: PCP, toluene, benzene, and xylene.
Comments Date: 07302003
Comments: ORDER - NAVY -- The Federal Facility Site Remediation Agreement (
Comments Date: 07302003
Comments: FFSRA) was signed by the Navy, Regional Water Quality Control Boa
Comments Date: 07302003
Comments: rd (RWQCB) and Department of Toxic Substances Control (DTSC). O
Comments Date: 07302003
Comments: RDER - PORT - The consent Agreement between the Port of Stockton,

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Comments Date:	07302003
Comments:	RWQCB and DTSC as signed.
Comments Date:	08211981
Comments:	Defense Property Disp Office: Drugs & household/construction
Comments Date:	08211981
Comments:	wastes dumped.
Comments Date:	09292003
Comments:	DEED - PHSE3 -- The county of San Joaquin recorded the Deed
Comments Date:	09292003
Comments:	Restriction on September 29, 2003.
Comments Date:	10172001
Comments:	FOST - PHSII -- Concurred with Draft Final Finding of Suitability
Comments Date:	10172001
Comments:	to Transfer.
Comments Date:	11031981
Comments:	Records Search HWMB/Enforcement: Potential onsite hazardous
Comments Date:	11031981
Comments:	wastes.
Comments Date:	11301982
Comments:	Site referred to HWMB/Enforcement.
Comments Date:	12091998
Comments:	PEA - S2345 -- Soil samples collected per sampling plan to determ
Comments Date:	12091998
Comments:	ine if hazardous substances were released into the environment.
ID Name:	BEP DATABASE PCODE
ID Value:	P12047
Alternate Name:	NAVAL COM - IND OPNAVCOMMNAVAL COM - AREA LFDSTOCKTON NAVAL COMMUNICATION STATION
Special Programs Code:	DSMOA
Special Programs Name:	DEFENSE MEMORANDUM OF AGREEMENT

Cortese:

Region:	CORTESE
Envirostor Id:	39970004
Site/Facility Type:	STATE RESPONSE
Cleanup Status:	ACTIVE
Status Date:	5/1/1986
Site Code:	100113
Latitude:	37.9489666666667
Longitude:	-121.3562
EPA Id:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Effective Date:	Not reported
Order No:	Not reported
Region:	Not reported
WDID:	Not reported
Swat R:	Not reported
Waste Discharger System Num:	Not reported
Solid Waste Id Num:	Not reported
Waste Management Unit Name:	Not reported
Agency Name:	Not reported

CORTESE:

Region:	CORTESE
Facility County Code:	39

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Reg By:	CALSI
Reg Id:	39970004

AWP:

AWP Facility ID:	39970004
Region Code:	1
Region:	SACRAMENTO
SMBR Branch Code:	NO
SMBR Branch Unit:	OMF-NORTHERN CALIF
Site Name.:	Not reported
Current Status Date:	05011986
Current Status:	ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency Code:	DTSC
Lead Agency:	DEPT OF TOXIC SUBSTANCES CONTROL
Facility Type:	Closed military facility
Awp Site Type:	CLOSED MILITARY BASE
NPL:	Not Listed
Tier Of AWP Site:	Not reported
Source Of Funding:	Not reported
Responsible Staff Member:	JSALCEDO
Supervisor Responsible:	Not reported
SIC Code:	97
Facility SIC:	NATIONAL SECURITY/INTERNATIONAL AFFAIRS
RWQCB Code:	CV
RWQCB Associated With Site:	CENTRAL VALLEY
Site Access Controlled:	Not reported
Site Listed HWS List:	Not reported
Hazard Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Confirmed
# Of Contamination Sources:	5
Lat/Long:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Description Of Entity:	INTERSECTION OF EMBARCADERO & REID DRIVE
State Assembly Distt Code:	17
State Senate District:	05

RESPONSE:

Facility ID:	39970004
Site Type:	State Response
Site Type Detail:	Closed Base
Acres:	963
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP, RWQCB 5S - Central Valley
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Mitigation And Brownfield Reuse Program
Project Manager:	JOSE SALCEDO
Supervisor:	Charles Ridenour
Division Branch:	Cleanup Sacramento
Site Code:	100113
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	17
Senate:	05
Special Program Status:	Navy
Status:	Active

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Status Date:	1986-05-01 00:00:00
Restricted Use:	NO
Funding:	* Defense Environmental Restoration Program (DERP)
Latitude:	37.948966666666699
Longitude:	-121.3562
APN:	NONE SPECIFIED
Past Use:	FIRING RANGE - SMALL ARMS ETC..., FIRING RANGE - SMALL ARMS ETC..., VEHICLE MAINTENANCE
Potential COC:	30006, 30007, 30008, 30013, 30013, 30018, 30024, 3002502
Confirmed COC:	30006,30007,30008,30013,, ,30013,, ,30024,3002502,30018
Potential Description:	SOIL, SOIL, SOIL
Alias Name:	NAVAL COM - AREA LFD
Alias Type:	Alternate Name
Alias Name:	NAVAL COM - IND OP
Alias Type:	Alternate Name
Alias Name:	NAVCOMM
Alias Type:	Alternate Name
Alias Name:	Naval Communications Station, Stockton
Alias Type:	Alternate Name
Alias Name:	Navcomsta
Alias Type:	Alternate Name
Alias Name:	110033617922
Alias Type:	EPA (FRS #)
Alias Name:	T0607790459
Alias Type:	GeoTracker Global ID
Alias Name:	P12047
Alias Type:	PCode
Alias Name:	100113
Alias Type:	Project Code (Site Code)
Alias Name:	39970004
Alias Type:	Envirostor ID Number
Alias Name:	39970005
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment/Site Inspection Report (PA/SI)
Completed Date:	1994-04-22 00:00:00
Comments:	Not reported
Completed Area Name:	Transfer Parcels
Completed Sub Area Name:	Phase III Early Transfer
Completed Document Type:	Finding of Suitability for Early Transfer
Completed Date:	2003-06-30 00:00:00
Comments:	FOSET - PHSE3 -- The FOSET was finalized on June 30, 2003. The public comment period was from May 30-June 28, 2003. All comments were addressed.
Completed Area Name:	Transfer Parcels
Completed Sub Area Name:	Phase II Transfer Parcels
Completed Document Type:	Finding of Suitability to Transfer
Completed Date:	2001-10-17 00:00:00
Comments:	FOST - PHSII -- Concurred with Draft Final Finding of Suitability to Transfer.
Completed Area Name:	Sites With No Operable Unit
Completed Sub Area Name:	CAT13

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 1999-06-02 00:00:00
Comments: PEA - CAT13 -- Preliminary Endangerment Assessment for approximately 120 sites to determine if additional work is needed.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: CAT13
Completed Document Type: Remedial Action Plan
Completed Date: 2000-01-20 00:00:00
Comments: RAP - CAT13 -- NCS Stockton is located on 1459 acres of Rough and Ready Island. The Phase I Parcels are those parcels designated transferable as Categories 1 through 3. The Department of Toxic Substances Control Provided a letter of concurrence on the designation of parcels under cover letter dated June 2, 1999.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Community Environmental Response Facilitation Act
Completed Date: 1998-04-30 00:00:00
Comments: CERFA - G0 -- A Basewide Supplemental Environmental Baseline Survey (SEBS) was submitted to DTSC by the Navy for Naval Communication Stockton (NCS)-Stockton. The SEBS included the Navy's proposed lists of parcels that qualify for designation as Environmental Condition of Property (ECP) Categories 1 through 3. DTSC concurred on the Navy's designation for several parcels. Other parcels were re-categorized by DTSC. A table listing parcel designation and concurrence/non-concurrence is attached to DTSC's letter of April 30, 1998.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: S2345
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 1998-12-09 00:00:00
Comments: PEA - S2345 -- Soil samples collected per sampling plan to determine if hazardous substances were released into the environment.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P114+
Completed Document Type: Finding of Suitability to Lease
Completed Date: 1997-09-19 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SUMPS
Completed Document Type: Removal Action Completion Report
Completed Date: 1999-01-12 00:00:00
Comments: RA - SUMPS -- Remove debris and sediment from storm water catch basins.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SUMPS
Completed Document Type: Remedial Action Plan
Completed Date: 1996-06-25 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 1998-03-19 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 810
Completed Document Type: Removal Action Completion Report
Completed Date: 1992-04-15 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 810
Completed Document Type: * Engineering Evaluation / Cost Analysis
Completed Date: 1991-02-28 00:00:00
Comments: FRIFS: Building 810.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1987-02-09 00:00:00
Comments: Site Screening Done: Mitre Model required.

Completed Area Name: Transfer Parcels - Leased Property
Completed Sub Area Name: Not reported
Completed Document Type: Finding of Suitability to Lease
Completed Date: 1997-05-02 00:00:00
Comments: Not reported

Completed Area Name: Transfer Parcels
Completed Sub Area Name: Phase I Transfer Parcels
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 1997-05-02 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Baseline Survey
Completed Date: 1997-05-02 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 5EH
Completed Document Type: Remedial Action Plan
Completed Date: 1997-12-05 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 6SITE
Completed Document Type: Removal Action Completion Report
Completed Date: 1996-06-25 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: DDT
Completed Document Type: Feasibility Study Report
Completed Date: 1998-03-30 00:00:00
Comments: Not reported

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Federal Facility SR Agreement
Completed Date: 2003-07-30 00:00:00
Comments: ORDER - NAVY -- The Federal Facility Site Remediation Agreement (FFSRA) was signed by the Navy, Regional Water Quality Control Board (RWQCB) and Department of Toxic Substances Control (DTSC). ORDER - PORT - The consent Agreement between the Port of Stockton, RWQCB and DTSC as signed.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 5EH
Completed Document Type: * CEQA
Completed Date: 1997-12-05 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SUMPS
Completed Document Type: * CEQA
Completed Date: 1996-06-25 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SOIL
Completed Document Type: * CEQA
Completed Date: 1994-06-10 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 1979-01-14 00:00:00
Comments: Facility identified from RWQCB.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Early Transfer/Covenant Deferral Package
Completed Date: 2010-07-30 00:00:00
Comments: GOAR signed by Governor on 7/30.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Navy Retained Property
Schedule Sub Area Name: Not reported
Schedule Document Type: Finding of Suitability for Early Transfer
Schedule Due Date: 2009-12-31 00:00:00
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: State Response
Site Type Detailed: Closed Base
Acres: 963
NPL: NO
Regulatory Agencies: SMBRP, RWQCB 5S - Central Valley
Lead Agency: SMBRP

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Program Manager:	JOSE SALCEDO
Supervisor:	Charles Ridenour
Division Branch:	Cleanup Sacramento
Facility ID:	39970004
Site Code:	100113
Assembly:	17
Senate:	05
Special Program:	Navy
Status:	Active
Status Date:	1986-05-01 00:00:00
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	* Defense Environmental Restoration Program (DERP)
Latitude:	37.948966666666699
Longitude:	-121.3562
APN:	NONE SPECIFIED
Past Use:	FIRING RANGE - SMALL ARMS ETC..., FIRING RANGE - SMALL ARMS ETC..., VEHICLE MAINTENANCE
Potential COC:	30006, 30007, 30008, 30013, 30013, 30018, 30024, 3002502
Confirmed COC:	30006,30007,30008,30013,, ,30013,, ,30024,3002502,30018
Potential Description:	SOIL, SOIL, SOIL
Alias Name:	NAVAL COM - AREA LFD
Alias Type:	Alternate Name
Alias Name:	NAVAL COM - IND OP
Alias Type:	Alternate Name
Alias Name:	NAVCOMM
Alias Type:	Alternate Name
Alias Name:	Naval Communications Station, Stockton
Alias Type:	Alternate Name
Alias Name:	Navcomsta
Alias Type:	Alternate Name
Alias Name:	110033617922
Alias Type:	EPA (FRS #)
Alias Name:	T0607790459
Alias Type:	GeoTracker Global ID
Alias Name:	P12047
Alias Type:	PCode
Alias Name:	100113
Alias Type:	Project Code (Site Code)
Alias Name:	39970004
Alias Type:	Envirostor ID Number
Alias Name:	39970005
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment/Site Inspection Report (PA/SI)
Completed Date:	1994-04-22 00:00:00
Comments:	Not reported
Completed Area Name:	Transfer Parcels
Completed Sub Area Name:	Phase III Early Transfer
Completed Document Type:	Finding of Suitability for Early Transfer
Completed Date:	2003-06-30 00:00:00
Comments:	FOSET - PHSE3 -- The FOSET was finalized on June 30, 2003. The public comment period was from May 30-June 28, 2003. All comments were addressed.

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Completed Area Name: Transfer Parcels
Completed Sub Area Name: Phase II Transfer Parcels
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 2001-10-17 00:00:00
Comments: FOST - PHSII -- Concurred with Draft Final Finding of Suitability to Transfer.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: CAT13
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 1999-06-02 00:00:00
Comments: PEA - CAT13 -- Preliminary Endangerment Assessment for approximately 120 sites to determine if additional work is needed.

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Completed Sub Area Name: CAT13
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Completed Sub Area Name: Not reported
Completed Document Type: * Community Environmental Response Facilitation Act
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Comments: CERFA - G0 -- A Basewide Supplemental Environmental Baseline Survey (SEBS) was submitted to DTSC by the Navy for Naval Communication Stockton (NCS)-Stockton. The SEBS included the Navy's proposed lists of parcels that qualify for designation as Environmental Condition of Property (ECP) Categories 1 through 3. DTSC concurred on the Navy's designation for several parcels. Other parcels were re-categorized by DTSC. A table listing parcel designation and concurrence/non-concurrence is attached to DTSC's letter of April 30, 1998.

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Completed Sub Area Name: S2345
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Comments: PEA - S2345 -- Soil samples collected per sampling plan to determine if hazardous substances were released into the environment.

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Completed Sub Area Name: P114+
Completed Document Type: Finding of Suitability to Lease
Completed Date: 1997-09-19 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SUMPS
Completed Document Type: Removal Action Completion Report
Completed Date: 1999-01-12 00:00:00
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STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SUMPS
Completed Document Type: Remedial Action Plan
Completed Date: 1996-06-25 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 1998-03-19 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 810
Completed Document Type: Removal Action Completion Report
Completed Date: 1992-04-15 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
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Comments: Not reported

Completed Area Name: Transfer Parcels
Completed Sub Area Name: Phase I Transfer Parcels
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 1997-05-02 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Baseline Survey
Completed Date: 1997-05-02 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 5EH
Completed Document Type: Remedial Action Plan
Completed Date: 1997-12-05 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 6SITE
Completed Document Type: Removal Action Completion Report

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Completed Date: 1996-06-25 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: DDT
Completed Document Type: Feasibility Study Report
Completed Date: 1998-03-30 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Federal Facility SR Agreement
Completed Date: 2003-07-30 00:00:00
Comments: ORDER - NAVY -- The Federal Facility Site Remediation Agreement (FFSRA) was signed by the Navy, Regional Water Quality Control Board (RWQCB) and Department of Toxic Substances Control (DTSC). ORDER - PORT - The consent Agreement between the Port of Stockton, RWQCB and DTSC as signed.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 5EH
Completed Document Type: * CEQA
Completed Date: 1997-12-05 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SUMPS
Completed Document Type: * CEQA
Completed Date: 1996-06-25 00:00:00
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SOIL
Completed Document Type: * CEQA
Completed Date: 1994-06-10 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 1979-01-14 00:00:00
Comments: Facility identified from RWQCB.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Early Transfer/Covenant Deferral Package
Completed Date: 2010-07-30 00:00:00
Comments: GOAR signed by Governor on 7/30.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Navy Retained Property
Schedule Sub Area Name: Not reported
Schedule Document Type: Finding of Suitability for Early Transfer
Schedule Due Date: 2009-12-31 00:00:00

STOCKTON NAVAL COMMUNICATION STATION (Continued) **S101272870**

Schedule Revised Date: Not reported

L163
ESE
> 1
1.008 mi.
5321 ft.

LIKA - NAVY DRIVE
2041 NAVY DRIVE
STOCKTON, CA 95206

Site 1 of 2 in cluster L

CA BOND EXP. PLAN **S100833170**
NPDES **N/A**
WDS
HAZNET

Relative:
Lower

Actual:
7 ft.

CA BOND EXP. PLAN:

Reponsible Party:	RESPONSIBLE PARTY-LEAD SITE CLEANUP WORKPLAN
Project Revenue Source Company:	Lika Corporation/Tandy Corporation/M. & M. Milan Mandaric c/o Jose Allen
Project Revenue Source Addr:	1443 Navy Drive/1900 Taylor Street/Four Embarcadero Center, Ste. 3750
Project Revenue Source City,St,Zip:	Stockton/Fort Worth/San Francisco, CA/TX/CA 95206/76102/94111
Project Revenue Source Desc:	The San Joaquin County D.A. has negotiated an enforceable order with the responsible party. It allows cost recovery by DHS for approximately $15,000 for investigation, cleanup and sampling, and evaluation of cleanup plans. A RAO was issued. DHS has budgeted $50,000 for related direct costs. DHS will pursue recovery of 100 percent of direct costs plus staff costs and overhead related to the project. The responsible parties will pay all costs associated with site cleanup.
Site Description:	Beginning in approximately 1969, the LIKA Corporation manufactured circuit boards here. Production ceased in 1985. Manufacturing processes include etching and copperplating of the boards. A certain portion of these are further plated with gold, nickel or tin. The disposal methods utilized during commercial site operation include storage in plastic drums and a 6,500-gallon above-ground tank, neutralization of acid wastes with a 30 percent sodium hydroxide solution, and subsequent discharge to the sanitary sewer system.
Hazardous Waste Desc:	Lead and copper have been confirmed as soil and ground water contaminants at the site. Past acid leakage has reduced the alkaline nature of site soils.
Threat To Public Health & Env:	The depth to ground water in this area is about 15 feet. The pathways of potential exposure include dermal contact, inhalation and ingestion. Potential receptors include humans, mammals, birds, insects, soil bacteria and grasses common to the Central Valley. No wells used for drinking water are registered with the State Department of Water Resources within 400 yards of the site. The ground water gradient is very slight under the site. The site is fenced and locked.
Site Activity Status:	The second phase of the RI has been completed. A recent round of ground water monitoring indicates the lead and nickel concentrations have dropped to background levels. Two deeper monitoring wells have been installed, one downgradient and one upgradient. A draft RAP and a proposed negative declaration have been prepared. The CEQA comment period expired September 30, 1988; a notice of determination was signed October 31, 1988. A Public Meeting was held on September 28, 1988 to discuss the draft RAP. A remedial action order was issued on November 23, 1987.

NPDES:

Npdes Number:	CAS00001
Facility Status:	Active
Agency Id:	Not reported
Region:	5S
Regulatory Measure Id:	Not Available
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Available
WDID:	5S39I018245
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	N/A

LIKA - NAVY DRIVE (Continued) **S100833170**

Effective Date Of Regulatory Measure:	7/7/2003
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	LKQ Stockton Inc
Discharge Address:	2041 Navy Dr
Discharge City:	Stockton
Discharge State:	Ca
Discharge Zip:	95206

CA WDS:

Facility ID:	5S 39I013477
Facility Type:	Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2094641111
Facility Contact:	JOE CAMMISO
Agency Name:	TAVAKOLI BEN
Agency Address:	2041 NAVY DR
Agency City,St,Zip:	STOCKTON 95206
Agency Contact:	JOE CAMMISO
Agency Telephone:	2094641111
Agency Type:	Private
SIC Code:	5015
SIC Code 2:	Not reported
Primary Waste:	Stormwater Runoff
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The facility is not a POTW.
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

HAZNET:

Year:	2009
Gepaid:	CAL000268997

LIKA - NAVY DRIVE (Continued) **S100833170**

Contact:	JERRY SHUMAN
Telephone:	2093274003
Mailing Name:	Not reported
Mailing Address:	2041 NAVY DRIVE
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Other organic solids
Disposal Method:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	6.6
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAL000268997
Contact:	JERRY SHUMAN
Telephone:	2093274003
Mailing Name:	Not reported
Mailing Address:	2041 NAVY DRIVE
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	CAT080014079
TSD County:	Contra Costa
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	1.258
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAL000268997
Contact:	JERRY SHUMAN
Telephone:	2093274003
Mailing Name:	Not reported
Mailing Address:	2041 NAVY DRIVE
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	CAD980884183
TSD County:	Sacramento
Waste Category:	Unspecified oil-containing waste
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.22935
Facility County:	San Joaquin

Year:	2009
Gepaid:	CAL000268997
Contact:	JERRY SHUMAN
Telephone:	2093274003
Mailing Name:	Not reported
Mailing Address:	2041 NAVY DRIVE
Mailing City,St,Zip:	STOCKTON, CA 952060000
Gen County:	San Joaquin
TSD EPA ID:	CAD980884183
TSD County:	Sacramento
Waste Category:	Unspecified organic liquid mixture

LIKA - NAVY DRIVE (Continued) **S100833170**

Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.289
Facility County: San Joaquin

Year: 2009
Gepaid: CAL000268997
Contact: JERRY SHUMAN
Telephone: 2093274003
Mailing Name: Not reported
Mailing Address: 2041 NAVY DRIVE
Mailing City,St,Zip: STOCKTON, CA 952060000
Gen County: San Joaquin
TSD EPA ID: CAD980887418
TSD County: Alameda
Waste Category: Unspecified oil-containing waste
Disposal Method: DISCHARGE TO SEWER/POTW OR NPDES(WITH PRIOR STORAGE--WITH OR WITHOUT TREATMENT)
Tons: 6.672
Facility County: San Joaquin

Click this hyperlink while viewing on your computer to access
6 additional CA_HAZNET: record(s) in the EDR Site Report.

L164 **LIKA CORPORATION - NAVY DRIVE** **HIST Cal-Sites** **S101482128**
ESE **2041 NAVY DRIVE** **RESPONSE** **N/A**
> 1 **STOCKTON, CA 95206** **ENVIROSTOR**
1.008 mi.
5321 ft. **Site 2 of 2 in cluster L**

Relative:
Lower

Actual:
7 ft.

HISTORICAL CAL-SITES:
Facility ID: 39360019
Region: 1
Region Name: SACRAMENTO
Branch: CC
Branch Name: CENTRAL CALIFORNIA
File Name: Not reported
State Senate District: 06291990
Status: CERT - CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name: CERTIFIED
Lead Agency: DTSC
Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL
Facility Type: RP
Type Name: RESPONSIBLE PARTY
NPL: Not Listed
SIC Code: 36
SIC Name: MANU - ELECTRONIC & OTHER ELECTRIC EQUIP
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Confirmed
Staff Member Responsible for Site: FAMADOR
Supervisor Responsible for Site: Not reported
Region Water Control Board: Not reported
Region Water Control Board Name: Not reported
Lat/Long Direction: Not reported

LIKA CORPORATION - NAVY DRIVE (Continued) **S101482128**

Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	17
State Senate District Code:	05
Facility ID:	39360019
Activity:	SS
Activity Name:	SITE SCREENING
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02091987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39360019
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06291990
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39360019
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	Not reported

LIKA CORPORATION - NAVY DRIVE (Continued) **S101482128**

Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08211995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	2041 NAVY DRIVE
Alternate City,St,Zip:	STOCKTON, CA 95206
Background Info:	Hazardous chemicals were used on site in the manufacturing of circuit boards. Copper and lead contaminated soil at the site and adjacent Ready Mix property was excavated to below the health based cleanup level of 46 ppm lead and 1260 ppm for copper, stabilized onsite, removed, and disposed offsite to an appropriate landfill. The Department's June 1990 certification of the remedial action required Lika Corp to sample the groundwater on a quarterly basis for two years beginning October 1990.
Comments Date:	01261993
Comments:	Attorney General's office issued a letter confirming the
Comments Date:	01261993
Comments:	Settlement Agreement payment schedule to Lika (Jaffe
Comments Date:	01261993
Comments:	Trutanich, Scatena & Blum). $160,000 plus interest.
Comments Date:	01261993
Comments:	Payment received in full on 2/9/93.
Comments Date:	01261993
Comments:	Not reported
Comments Date:	01261993
Comments:	Not reported
Comments Date:	01261993
Comments:	Not reported
Comments Date:	01261993
Comments:	Not reported
Comments Date:	02091987
Comments:	SITE SCREENING DONE
Comments Date:	02091993
Comments:	COST RECOVERY - Department received settlement as agreed.
Comments Date:	02091993
Comments:	It was applied to Navy Drive and field Avenue in proportion
Comments Date:	02091993
Comments:	to the charges on each site.
Comments Date:	03011985

LIKA CORPORATION - NAVY DRIVE (Continued) **S101482128**

Comments:	This is the date the site was first listed pursuant to
Comments Date:	03011985
Comments:	section 25356.
Comments Date:	08151989
Comments:	Records Search: Site listed in 1989 Bond Expenditure Plan.
Comments Date:	08191991
Comments:	Site certified in June 1990. Site is currently in operation
Comments Date:	08191991
Comments:	and maintenance. Facility is manufacturer of printed
Comments Date:	08191991
Comments:	circuits. Contaminants included gold, nickel, and tin.
Comments Date:	08211995
Comments:	O&M -- DTSC APPROVAL OF SITE CLOSURE AND TERMINATION OF POST
Comments Date:	08211995
Comments:	CERTIFICATION MAINTENANCE REQUIREMENTS. THE RP COMPLETED
Comments Date:	08211995
Comments:	ALL MONITORING PROGRAM REQUIREMENTS STIPULATED IN THE 6/29/90
Comments Date:	08211995
Comments:	CERTIFICATION AGREEMENT (DOCKET #HSA 89/90-018). ALL DE-
Comments Date:	08211995
Comments:	COMMISSIONING WORK HAS BEEN COMPLETED AND APPROVED.
ID Name:	BEP DATABASE PCODE
ID Value:	P11052
ID Name:	CALSTARS CODE
ID Value:	100090
Alternate Name:	LIKA CORPORATION - NAVY DRIVE
Special Programs Code:	Not reported
Special Programs Name:	Not reported

RESPONSE:

Facility ID:	39360019
Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	Not reported
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Mitigation And Brownfield Reuse Program
Project Manager:	FERNANDO AMADOR
Supervisor:	Fernando A. Amador
Division Branch:	Cleanup Sacramento
Site Code:	100090
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	17
Senate:	05
Special Program Status:	Not reported
Status:	Certified
Status Date:	1990-06-29 00:00:00
Restricted Use:	NO
Funding:	Responsible Party
Latitude:	37.938206962506101
Longitude:	-121.318888664246
APN:	NONE SPECIFIED
Past Use:	MANUFACTURING - ELECTRONIC, UNKNOWN
Potential COC:	30156, 30343
Confirmed COC:	30156,30343
Potential Description:	SOIL

LIKA CORPORATION - NAVY DRIVE (Continued) **S101482128**

Alias Name: 110002652255
Alias Type: EPA (FRS #)
Alias Name: P11052
Alias Type: PCode
Alias Name: 100090
Alias Type: Project Code (Site Code)
Alias Name: 39360019
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 1995-08-21 00:00:00
Comments: O&M -- DTSC APPROVAL OF SITE CLOSURE AND TERMINATION OF POST CERTIFICATION MAINTENANCE REQUIREMENTS. THE RP COMPLETED ALL MONITORING PROGRAM REQUIREMENTS STIPULATED IN THE 6/29/90 CERTIFICATION AGREEMENT (DOCKET #HSA 89/90-018). ALL DE-COMMISSIONING WORK HAS BEEN COMPLETED AND APPROVED.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1987-02-09 00:00:00
Comments: SITE SCREENING DONE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 1990-06-29 00:00:00
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:

Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: Not reported
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: FERNANDO AMADOR
Supervisor: Fernando A. Amador
Division Branch: Cleanup Sacramento
Facility ID: 39360019
Site Code: 100090
Assembly: 17
Senate: 05
Special Program: Not reported

LIKA CORPORATION - NAVY DRIVE (Continued) **S101482128**

Status: Certified
Status Date: 1990-06-29 00:00:00
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.938206962506101
Longitude: -121.318888664246
APN: NONE SPECIFIED
Past Use: MANUFACTURING - ELECTRONIC, UNKNOWN
Potential COC: 30156, 30343
Confirmed COC: 30156,30343
Potential Description: SOIL
Alias Name: 110002652255
Alias Type: EPA (FRS #)
Alias Name: P11052
Alias Type: PCode
Alias Name: 100090
Alias Type: Project Code (Site Code)
Alias Name: 39360019
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 1995-08-21 00:00:00
Comments: O&M -- DTSC APPROVAL OF SITE CLOSURE AND TERMINATION OF POST CERTIFICATION MAINTENANCE REQUIREMENTS. THE RP COMPLETED ALL MONITORING PROGRAM REQUIREMENTS STIPULATED IN THE 6/29/90 CERTIFICATION AGREEMENT (DOCKET #HSA 89/90-018). ALL DE-COMMISSIONING WORK HAS BEEN COMPLETED AND APPROVED.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1987-02-09 00:00:00
Comments: SITE SCREENING DONE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 1990-06-29 00:00:00
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

M165 NE > 1 1.182 mi. 6239 ft. | **TYCO PRINTED CIRCUIT GRP. - STOCKTON**
1950 W. FREMONT STREET
STOCKTON, CA 95203 | **ENVIROSTOR** | **S110494399**
N/A

Site 1 of 2 in cluster M

Relative: Lower

Actual: 7 ft.

ENVIROSTOR:

Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	VIOLETA MISLANG
Supervisor:	Robert Senga
Division Branch:	Cleanup Cypress
Facility ID:	71002665
Site Code:	101564
Assembly:	17
Senate:	05
Special Program:	Not reported
Status:	Active
Status Date:	2003-08-26 00:00:00
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.955092
Longitude:	-121.322317
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD109227496
Alias Type:	EPA Identification Number
Alias Name:	101564
Alias Type:	Project Code (Site Code)
Alias Name:	71002665
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase I Verification
Completed Date:	2003-08-26 00:00:00
Comments:	Inspection report sent on 8/26/2003
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	2005-02-14 00:00:00
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Compliance Verification
Completed Date:	2002-12-20 00:00:00
Comments:	Not reported
Completed Area Name:	PROJECT WIDE

TYCO PRINTED CIRCUIT GRP. - STOCKTON (Continued) **S110494399**

Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 2002-08-20 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 2011-05-12 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 2004-06-21 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 2004-06-21 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 2003-08-26 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Corrective Measures Proposal Approval
Completed Date: 2011-05-12 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 2011-03-25 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 2011-03-25 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 2011-03-25 00:00:00
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 2007-10-04 00:00:00

TYCO PRINTED CIRCUIT GRP. - STOCKTON (Continued) **S110494399**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 2004-12-31 00:00:00
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Land Use Restriction
Future Due Date: 2011
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

M166 **PAT X-RAY CO INC** **HAZNET** **S100941953**
NE **711 SAN JUAN AVE** **HWP** **N/A**
> 1 **STOCKTON, CA 95203**
1.184 mi.
6251 ft. **Site 2 of 2 in cluster M**

Relative:
Lower

Actual:
7 ft.

HAZNET:
Year: 2001
Gepaid: CAD982510281
Contact: MAC MECHAM/BRANCH MGR
Telephone: 2094653828
Mailing Name: Not reported
Mailing Address: 711 SAN JUAN AVE
Mailing City,St,Zip: STOCKTON, CA 952031435
Gen County: San Joaquin
TSD EPA ID: Not reported
TSD County: Kern
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: R01
Tons: 2.98
Facility County: Not reported

Year: 2000
Gepaid: CAD982510281
Contact: ANNA PATTON
Telephone: 2094653828
Mailing Name: Not reported
Mailing Address: 711 SAN JUAN AVE
Mailing City,St,Zip: STOCKTON, CA 952031435
Gen County: San Joaquin
TSD EPA ID: CAD982510281
TSD County: San Joaquin
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Not reported
Tons: 2.4094
Facility County: San Joaquin

Year: 2000
Gepaid: CAD982510281
Contact: ANNA PATTON

PAT X-RAY CO INC (Continued) **S100941953**

Telephone:	2094653828
Mailing Name:	Not reported
Mailing Address:	711 SAN JUAN AVE
Mailing City,St,Zip:	STOCKTON, CA 952031435
Gen County:	San Joaquin
TSD EPA ID:	CA0000084517
TSD County:	Sacramento
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	H01
Tons:	.0208
Facility County:	San Joaquin

Year:	2000
Gepaid:	CAD982510281
Contact:	ANNA PATTON
Telephone:	2094653828
Mailing Name:	Not reported
Mailing Address:	711 SAN JUAN AVE
Mailing City,St,Zip:	STOCKTON, CA 952031435
Gen County:	San Joaquin
TSD EPA ID:	CAL000197215
TSD County:	1
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	R01
Tons:	5.0456
Facility County:	San Joaquin

Year:	2000
Gepaid:	CAD982510281
Contact:	ANNA PATTON
Telephone:	2094653828
Mailing Name:	Not reported
Mailing Address:	711 SAN JUAN AVE
Mailing City,St,Zip:	STOCKTON, CA 952031435
Gen County:	San Joaquin
TSD EPA ID:	CAD981402522
TSD County:	Kern
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	R01
Tons:	.4587
Facility County:	San Joaquin

Click this hyperlink while viewing on your computer to access
76 additional CA_HAZNET: record(s) in the EDR Site Report.

HWP:

EPA Id:	CAD982510281
Latitude:	37.955295
Longitude:	-121.320929
Facility Type:	HAZ WASTE - NON-OPERATING
Cleanup Status:	Not reported
Region:	CAL CTR, LAND DISPOSAL
Permit Maintenance Lead:	Not reported
Permit Renewal Lead:	Not reported
Corrective Action Lead:	Not reported
Supervisor:	Not reported
Site Code:	Not reported

PAT X-RAY CO INC (Continued) **S100941953**

Assembly District:	Not reported
Senate District:	Not reported
Public Information Officer:	Not reported
Facility Status:	Not reported
Site History:	Not reported

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167 WNW > 1 1.229 mi. 6488 ft.

NAVAL COM - AREA LFD
ROUGH AND READY ISLAND
STOCKTON, CA 95203

CA BOND EXP. PLAN **S100833227**
EMI **N/A**

Relative: Lower

Actual: 0 ft.

CA BOND EXP. PLAN:

Reponsible Party:	FEDERAL FACILITY SITE CLEANUP WORKPLAN
Project Revenue Source Company:	Not reported
Project Revenue Source Addr:	Not reported
Project Revenue Source City,St,Zip:	Not reported
Project Revenue Source Desc:	The Department of Defense appropriates federal funds for the site characterization and remedial action work. State funds may be used for oversight activities. The Department has budgeted $100,000 for private consultant assistance to DHS oversight staff. The Department will seek funding from EPA and cost recovery stipulated through the remedial action order process.
Site Description:	This facility is a major Navy communications relay station. Tenants include the General Services Administration (GSA), the Defense Logistics Agency, the U.S. Coast Guard and the U.S. Army Boat Section. The facility is divided into two general areas:Area LFD and Industrial Operations. Area LFD includes: a former landfill and burning ground, a battery acid disposal area and a former fire fighting area. Large quantities of hazardous waste materials were disposed of in the landfill area. In the fire fighting area, waste oil was ignited in open pits to allow the practice of fire fighting techniques. The residual oil and water mixtures were allowed to seep into the ground.
Hazardous Waste Desc:	Hazardous wastes in Area LFD include polychlorinated biphenyls (PCBs), trichloroethylene (TCE), trichloroethane (TCA), tetrachloroethylene (PCE), toluene, xylene, benzene, heavy metals, paints, petroleum products, pesticides, pentachlorophenol (PCP)and battery acids.
Threat To Public Health & Env:	The soils at the installation are contaminated. The ground water may have been contaminated and surface waters may be impacted. Ground water beneath the station is very shallow. Chemicals may further contaminate the San Joaquin River. The site access is limited to personnel, however, there is a potential for station workers to come in direct contact with contaminated areas.
Site Activity Status:	The site is currently under investigation by the Navy. The investigation included a hydrogeological characterization an well as soils and surface water sampling. During the hydrogeological investigation, 80 piezometers and 17 ground water monitoringwells were installed. Sampling results from these wells confirmed the presence of volatile organic compounds (VOCs) in the shallow ground water. The next phase of the investigation will determine how deep contamination has penetrated as well as designing interim measures to remedy localized high concentrations of VOCs.

EMI:

Year:	1995
County Code:	39
Air Basin:	SJV
Facility ID:	571
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD

NAVAL COM - AREA LFD (Continued) **S100833227**

Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

N168 **LIKA - FIELD AVENUE** **CA BOND EXP. PLAN** **S100833546**
NE **1856 FIELD AVENUE** **N/A**
> 1 **STOCKTON, CA 95206**
1.243 mi.
6564 ft. **Site 1 of 2 in cluster N**

Relative:
Lower

Actual:
7 ft.

CA BOND EXP. PLAN:

Reponsible Party:	COST RECOVERY/OPERATION AND MAINTENANCE SITE
Project Revenue Source Company:	Lika Corporation - Responsible Party
Project Revenue Source Addr:	1443 Navy Drive
Project Revenue Source City,St,Zip:	Stockton, CA 95206
Project Revenue Source Desc:	The San Joaquin County D.A. has negotiated an enforceable order with the responsible party. The Department will recover 100 percent of direct costs plus staff costs and overhead related to oversight of the RP's remediation activities. The responsible party paid costs associated with site cleanup.
Site Description:	LIKA Corporation manufactured circuit boards at this annex from 1982 to 1985. The majority of these boards were then sent to the old facility located on Navy Drive for further plating and finishing. The remaining boards were used to produce multilayering. In multilayering, a resistant compound for selective plating is applied to the boards and photodeveloped using a caustic soda solution which drains to a concrete sump. The resistant treated plates are then etched, copperplated and treated for the layering process. The caustic stripper and the rinse waters from the process also drain to the aforementioned sump, which is connected to the sanitary sewer.
Hazardous Waste Desc:	Copper was confirmed as a soil and ground water contaminant at the site prior to remediation. Past acid leakage reduced the alkaline nature of site soils.
Threat To Public Health & Env:	Soil was contaminated with copper and lead. No threat to public health exists now. Fout hundred forty eight (448) cubic feet of soil contaminated with copper and lead above the cleanup level of 35 and 10 parts per million respectively were excavatedand removed to a Class I landfill. Subsequent sampling at the site, after the soil excavation, showed that the ground water was not contaminated.
Site Activity Status:	The Department inspected and sampled this site in November, 1984. The responsible party conducted investigations at the site to determine the extent of contamination in October, 1985 and February, 1986. A feasibility study was delivered to DHS in August, 1986 An IRM for soil excavation and removal was completed in May, 1987. The final RAP was completed in February, 1988. The site was certified as clean on April 28, 1988. An enforceable agreement was adopted April, 1988 for two years of quarterly ground water monitoring. Monitoring is scheduled for copper, lead, nickel, chromium, pH and depth-to-ground water from one upgradient and two downgradient wells.

N169 NE > 1 1.243 mi. 6564 ft. | **LIKA CORPORATION-FIELD AVENUE**
1856 FIELD AVE
STOCKTON, CA 95203 | **HIST Cal-Sites RESPONSE ENVIROSTOR** | **S100184169 N/A**

Site 2 of 2 in cluster N

Relative: Lower

Actual: 7 ft.

HISTORICAL CAL-SITES:

Facility ID:	39360018
Region:	1
Region Name:	SACRAMENTO
Branch:	CC
Branch Name:	CENTRAL CALIFORNIA
File Name:	Not reported
State Senate District:	04281988
Status:	CERT - CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name:	CERTIFIED
Lead Agency:	DTSC
Lead Agency:	DEPT OF TOXIC SUBSTANCES CONTROL
Facility Type:	RP
Type Name:	RESPONSIBLE PARTY
NPL:	Not Listed
SIC Code:	36
SIC Name:	MANU - ELECTRONIC & OTHER ELECTRIC EQUIP
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Confirmed
Staff Member Responsible for Site:	Not reported
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	Not reported
Region Water Control Board Name:	Not reported
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	17
State Senate District Code:	05
Facility ID:	39360018
Activity:	SS
Activity Name:	SITE SCREENING
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02091987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported

LIKA CORPORATION-FIELD AVENUE (Continued) **S100184169**

For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	39360018
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04281988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	1856 FIELD AVENUE
Alternate City,St,Zip:	STOCKTON, CA 95206
Alternate Address:	1830 FIELD AVENUE (CERCLIS)
Alternate City,St,Zip:	STOCKTON, CA 95206
Alternate Address:	1856 FIELD AVE
Alternate City,St,Zip:	STOCKTON, CA 95203
Background Info:	Not reported
Comments Date:	01111991
Comments:	DHS received EPA Federal Investigation Team's Screening Site
Comments Date:	01111991
Comments:	Inspection Reassessment -- EPA recommendation is No Further
Comments Date:	01111991
Comments:	Remedial Action (07/20/90).
Comments Date:	01261993
Comments:	Attorney General's office issued a letter confirming the
Comments Date:	01261993
Comments:	Settlement Agreement payment schedule to Lika (Jaffe
Comments Date:	01261993
Comments:	Trutanich, Scantena & Blum). Payment was received in full
Comments Date:	01261993
Comments:	on 2/9/93. (Total $160,000)
Comments Date:	01261993
Comments:	Not reported
Comments Date:	01261993
Comments:	Not reported
Comments Date:	01261993
Comments:	Not reported
Comments Date:	02091987
Comments:	Site Screening Done.

LIKA CORPORATION-FIELD AVENUE (Continued) **S100184169**

Comments Date:	03301985
Comments:	This is the date the site was first listed pursuant to
Comments Date:	03301985
Comments:	section 25356.
Comments Date:	07251991
Comments:	Circuit board manufacturer. Contaminants included PH, Cu, &
Comments Date:	07251991
Comments:	Pb. Site certified in 1988.
ID Name:	BEP DATABASE PCODE
ID Value:	P11051
ID Name:	EPA IDENTIFICATION NUMBER
ID Value:	CAD980886956
ID Name:	CALSTARS CODE
ID Value:	100089
Alternate Name:	LIKA FIELD AVENUE ANNEXLIKA CORPORATION-FIELD AVENUE
Special Programs Code:	Not reported
Special Programs Name:	Not reported

RESPONSE:

Facility ID:	39360018
Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	Not reported
National Priorities List:	NO
Cleanup Oversight Agencies:	DTSC
Lead Agency:	NONE SPECIFIED
Lead Agency Description:	Not reported
Project Manager:	Not reported
Supervisor:	* FANDERSO
Division Branch:	Cleanup Sacramento
Site Code:	100089
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	17
Senate:	05
Special Program Status:	Not reported
Status:	Certified
Status Date:	1988-04-28 00:00:00
Restricted Use:	NO
Funding:	Responsible Party
Latitude:	37.954837254756796
Longitude:	-121.31872202336299
APN:	NONE SPECIFIED
Past Use:	MANUFACTURING - ELECTRONIC
Potential COC:	30013, 30156
Confirmed COC:	30156,30013
Potential Description:	SOIL
Alias Name:	LIKA FIELD AVENUE ANNEX
Alias Type:	Alternate Name
Alias Name:	CAD980886956
Alias Type:	EPA Identification Number
Alias Name:	110002670299
Alias Type:	EPA (FRS #)
Alias Name:	110033607719
Alias Type:	EPA (FRS #)
Alias Name:	P11051
Alias Type:	PCode
Alias Name:	100089

LIKA CORPORATION-FIELD AVENUE (Continued) **S100184169**

Alias Type: Project Code (Site Code)
Alias Name: 39360018
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1987-02-09 00:00:00
Comments: Site Screening Done.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 1988-04-28 00:00:00
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: Not reported
NPL: NO
Regulatory Agencies: DTSC
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * FANDERSO
Division Branch: Cleanup Sacramento
Facility ID: 39360018
Site Code: 100089
Assembly: 17
Senate: 05
Special Program: Not reported
Status: Certified
Status Date: 1988-04-28 00:00:00
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.954837254756796
Longitude: -121.31872202336299
APN: NONE SPECIFIED
Past Use: MANUFACTURING - ELECTRONIC
Potential COC: 30013, 30156
Confirmed COC: 30156,30013
Potential Description: SOIL
Alias Name: LIKA FIELD AVENUE ANNEX
Alias Type: Alternate Name
Alias Name: CAD980886956

LIKA CORPORATION-FIELD AVENUE (Continued) **S100184169**

Alias Type:	EPA Identification Number
Alias Name:	110002670299
Alias Type:	EPA (FRS #)
Alias Name:	110033607719
Alias Type:	EPA (FRS #)
Alias Name:	P11051
Alias Type:	PCode
Alias Name:	100089
Alias Type:	Project Code (Site Code)
Alias Name:	39360018
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	1987-02-09 00:00:00
Comments:	Site Screening Done.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	1988-04-28 00:00:00
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

City	EDR ID	Site Name	Site Address	Zip	Database(s)
STOCKTON	S107534009		4307 S HWY 99 FRONTAGE ROAD		CDL
	S107538166		CORNER OF HWY 26 & ALPINE RD		CDL
STOCKTON	S107538259		DAGGET RD .75 MI N OF HIGHWAY		CDL
STOCKTON	S107540510		ROBERTS RD, 1/2 MI S OF HIGHWA	95206	CDL
STOCKTON	S108418446	ALCO IRON AND METAL CO	PORT ROAD 22	95203	SWRCY
HOLT	S108723857		INLAND RD, 1 MI S OF HIGHWAY 4	95206	CDL
STOCKTON	S108743762	CALIFORNIA AMMONIA COMPANY	2323 PORT ROAD G	95203	EMI,HAZNET,NPDES
STOCKTON	S108744330	CENTRAL CALIFORNIA TRACTION COMPAN	PORT RD A @ PORT OF STOCKTON	95203	HAZNET
STOCKTON	S109291158	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291180	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291224	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291265	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291281	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291353	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291357	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291402	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291410	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291413	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291416	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291434	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291481	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291505	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291512	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109291546	STOCKTON NCS - ROUGH AND READY ISL	FYFFE AVENUE	95203	MCS
STOCKTON	S109446638	INLAND COLD STORAGE PORT OF STOCKT	PORT RD 5 & PORT RD 6 AT PORT	95203	NPDES
STOCKTON	S109453237	PACIFIC ETHANOL INC STOCKTON SITE	948 NAVY DR & W WASHINGTON ST	95206	NPDES
STOCKTON	S109455947	RICE TERMINALS	2828 PORT RD A	95203	CHMIRS,NPDES
STOCKTON	S109467299	NAVCOMTELSTA SAN DIEGO DET STOCKTO	305 FYFFE AVE/CODE 43	95203	ENVIROSTOR,HWP
STOCKTON	S109693896	STOCKTON MOSS GARDEN EAST	E 1810 FRESNO AVE AT CHARTER W	95206	NPDES
STOCKTON	S109931985	WEST WAY TERMINAL CO INC	2219 PORT RD A	95203	HAZNET
STOCTON	S110071492	STOCKTON NCS - ROUGH AND READY ISL	DAVIS AVENUE	95203	MCS
STOCTON	S110071493	STOCKTON NCS - ROUGH AND READY ISL	DAVIS AVENUE	95203	MCS
STOCTON	S110071497	STOCKTON NCS - ROUGH AND READY ISL	DAVIS AVENUE	95203	MCS
STOCTON	S110071500	STOCKTON NCS - ROUGH AND READY ISL	DAVIS AVENUE	95203	MCS
STOCTON	S110071502	STOCKTON NCS - ROUGH AND READY ISL	NAVY DRIVE	95203	MCS
STOCKTON	S110372042	PG&E ROUGH & READY SUBSTATION	5415 NAVY DR	95203	HAZNET
STOCKTON	S110375322	INLAND COLD STORAGE STOCKTON	2323 PORT ROAD A	95203	HAZNET
STOCKTON	U004024092	JOHN CERRI	12919 E HWY 26	00000	UST ALAMEDA
STOCKTON	U004024141	KINGS ISLAND	21334 W HWY 4	95206	UST ALAMEDA
STOCKTON	U004024565	PETES PLACE LLC	9355 W HWY 4	95206	UST ALAMEDA

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/31/2011
Date Data Arrived at EDR: 04/13/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 62

Source: EPA
Telephone: N/A
Last EDR Contact: 07/12/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/31/2011
Date Data Arrived at EDR: 04/13/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 62

Source: EPA
Telephone: N/A
Last EDR Contact: 07/12/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/31/2011	Source: EPA
Date Data Arrived at EDR: 04/13/2011	Telephone: N/A
Date Made Active in Reports: 06/14/2011	Last EDR Contact: 07/12/2011
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/24/2011
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/25/2011	Source: EPA
Date Data Arrived at EDR: 03/01/2011	Telephone: 703-412-9810
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 06/14/2011
Number of Days to Update: 62	Next Scheduled EDR Contact: 09/12/2011
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPAa??s Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/11/2011	Telephone: 703-603-8704
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 07/15/2011
Number of Days to Update: 36	Next Scheduled EDR Contact: 10/24/2011
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/25/2011	Source: EPA
Date Data Arrived at EDR: 03/01/2011	Telephone: 703-412-9810
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 06/14/2011
Number of Days to Update: 62	Next Scheduled EDR Contact: 09/12/2011
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/09/2011
Date Data Arrived at EDR: 03/15/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 91

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/07/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/07/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/07/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/07/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/16/2011
Date Data Arrived at EDR: 03/25/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/16/2011
Date Data Arrived at EDR: 03/25/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 04/05/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 70

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 06/16/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 29

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/16/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 06/16/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 29

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/16/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/23/2011
Date Data Arrived at EDR: 05/24/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 22

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/24/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 06/06/2011
Next Scheduled EDR Contact: 09/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 06/20/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 06/20/2011
Date Data Arrived at EDR: 06/21/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 17

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/21/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 06/20/2011
Date Data Arrived at EDR: 06/21/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 17

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/21/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 06/20/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/13/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 05/09/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/17/2011
Date Data Arrived at EDR: 05/19/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 26

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 05/20/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 25

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/16/2011
Date Data Arrived at EDR: 05/17/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 28

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 03/03/2011
Date Data Arrived at EDR: 03/18/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 45

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/31/2011
Date Data Arrived at EDR: 02/01/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 48

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 11/04/2009
Date Data Arrived at EDR: 05/04/2010
Date Made Active in Reports: 07/07/2010
Number of Days to Update: 64

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/04/2010
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

State and tribal registered storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/20/2011
Date Data Arrived at EDR: 06/21/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 17

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 06/21/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 07/08/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/17/2011
Date Data Arrived at EDR: 05/19/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 26

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/18/2011
Date Data Arrived at EDR: 05/26/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 19

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/16/2011
Date Data Arrived at EDR: 05/17/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 28

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2011
Date Data Arrived at EDR: 06/01/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 13

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 02/03/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 01/01/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 68

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 03/03/2011
Date Data Arrived at EDR: 03/18/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 45

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 05/04/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 41

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 06/16/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 29

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/16/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 70

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 03/29/2011
Date Data Arrived at EDR: 03/29/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 06/01/2011
Date Data Arrived at EDR: 06/21/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 24

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/21/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 05/24/2011
Date Data Arrived at EDR: 05/24/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 22

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/24/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/09/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/02/2011
Date Data Arrived at EDR: 03/17/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 46

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/07/2011
Next Scheduled EDR Contact: 09/19/2011
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 06/16/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 29

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/16/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 03/04/2011
Date Made Active in Reports: 03/24/2011
Number of Days to Update: 20

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/06/2011
Next Scheduled EDR Contact: 09/19/2011
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

LUCIS: Land Use Control Information System
LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 07/11/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Varies

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 06/28/2011
Date Data Arrived at EDR: 06/29/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/13/2011
Date Data Arrived at EDR: 06/14/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 31

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 01/05/2011
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 51

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 05/03/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 43

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 06/20/2011
Date Data Arrived at EDR: 06/21/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 17

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/21/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 06/20/2011
Date Data Arrived at EDR: 06/21/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 17

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/21/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/07/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/12/2011
Date Data Arrived at EDR: 02/11/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/11/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/21/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 08/12/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 112

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 70

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/16/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 5

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/15/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/21/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 99

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 06/02/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/08/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/08/2011
Next Scheduled EDR Contact: 09/19/2011
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/17/2010
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 94

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/30/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/07/2011
Date Data Arrived at EDR: 01/21/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010
Date Data Arrived at EDR: 11/10/2010
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 98

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/22/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/18/2010
Date Data Arrived at EDR: 04/06/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 51

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/11/2011
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/12/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/14/2010
Date Data Arrived at EDR: 04/16/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 41

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Quarterly

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/24/2011
Date Data Arrived at EDR: 05/24/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/24/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 07/01/2011
Date Data Arrived at EDR: 07/01/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 14

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/15/2010
Date Data Arrived at EDR: 09/16/2010
Date Made Active in Reports: 09/29/2010
Number of Days to Update: 13

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/07/2010
Date Made Active in Reports: 08/12/2010
Number of Days to Update: 36

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/19/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 19

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/30/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/21/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 06/06/2011
Next Scheduled EDR Contact: 08/08/2011
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 06/01/2011
Date Data Arrived at EDR: 06/21/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 24

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/21/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 06/09/2011
Date Data Arrived at EDR: 06/16/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 29

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/19/2011
Date Data Arrived at EDR: 04/19/2011
Date Made Active in Reports: 05/12/2011
Number of Days to Update: 23

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/19/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/09/2010
Date Data Arrived at EDR: 08/11/2010
Date Made Active in Reports: 08/20/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/03/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Quarterly

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 03/15/2011
Date Data Arrived at EDR: 03/16/2011
Date Made Active in Reports: 04/26/2011
Number of Days to Update: 41

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/23/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Varies

FINANCIAL ASSURANCE 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 05/05/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/21/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: N/A

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/05/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/12/2011
Date Data Arrived at EDR: 04/15/2011
Date Made Active in Reports: 05/12/2011
Number of Days to Update: 27

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Semi-Annually

Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 04/12/2011
Date Data Arrived at EDR: 04/15/2011
Date Made Active in Reports: 05/18/2011
Number of Days to Update: 33

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Semi-Annually

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 03/29/2011
Date Data Arrived at EDR: 04/20/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 27

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Varies

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 12/01/2010
Date Data Arrived at EDR: 04/20/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 27

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 06/13/2011
Date Data Arrived at EDR: 06/14/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 31

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Semi-Annually

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/28/2011
Date Data Arrived at EDR: 05/13/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 33

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 03/28/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/15/2011
Date Data Arrived at EDR: 04/19/2011
Date Made Active in Reports: 05/12/2011
Number of Days to Update: 23

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/08/2011
Date Data Arrived at EDR: 03/03/2011
Date Made Active in Reports: 03/24/2011
Number of Days to Update: 21

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 06/30/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/13/2011
Date Data Arrived at EDR: 06/14/2011
Date Made Active in Reports: 07/19/2011
Number of Days to Update: 35

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 06/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List

A listing of sites included in the county?s Certified Unified Program Agency database. California?s Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 06/09/2011
Date Data Arrived at EDR: 06/09/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 29

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/31/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/28/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/31/2011
Date Data Arrived at EDR: 06/09/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 6

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/25/2011
Date Data Arrived at EDR: 04/28/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 19

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/25/2011
Next Scheduled EDR Contact: 08/08/2011
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 05/24/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/09/2011
Date Data Arrived at EDR: 02/09/2011
Date Made Active in Reports: 03/04/2011
Number of Days to Update: 23

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/25/2011
Next Scheduled EDR Contact: 08/08/2011
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/08/2011
Date Made Active in Reports: 03/03/2011
Number of Days to Update: 23

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/25/2011
Next Scheduled EDR Contact: 08/08/2011
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/18/2011
Date Data Arrived at EDR: 04/20/2011
Date Made Active in Reports: 05/18/2011
Number of Days to Update: 28

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county?s Certified Unified Program Agency database. California?s Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 06/07/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 30

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/31/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 04/15/2011
Date Data Arrived at EDR: 04/26/2011
Date Made Active in Reports: 05/18/2011
Number of Days to Update: 22

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 07/11/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 06/06/2011
Date Data Arrived at EDR: 06/06/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 9

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/31/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 01/20/2011
Date Data Arrived at EDR: 03/03/2011
Date Made Active in Reports: 03/24/2011
Number of Days to Update: 21

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 06/20/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/07/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/06/2011
Next Scheduled EDR Contact: 09/19/2011
Data Release Frequency: No Update Planned

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/02/2011
Date Data Arrived at EDR: 05/20/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/05/2011
Date Data Arrived at EDR: 05/20/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/05/2011
Date Data Arrived at EDR: 05/17/2011
Date Made Active in Reports: 06/20/2011
Number of Days to Update: 34

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/17/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 06/20/2011
Date Data Arrived at EDR: 06/21/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 17

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/26/2011
Date Data Arrived at EDR: 04/28/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 19

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 04/26/2011
Date Data Arrived at EDR: 04/28/2011
Date Made Active in Reports: 05/18/2011
Number of Days to Update: 20

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/07/2011
Date Data Arrived at EDR: 04/28/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 19

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/08/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/07/2011
Date Data Arrived at EDR: 04/29/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 18

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/08/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 06/09/2011
Date Data Arrived at EDR: 06/09/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 6

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/09/2010
Date Data Arrived at EDR: 09/15/2010
Date Made Active in Reports: 09/29/2010
Number of Days to Update: 14

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/17/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2010
Date Data Arrived at EDR: 11/16/2010
Date Made Active in Reports: 01/25/2011
Number of Days to Update: 70

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/16/2011
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/31/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/27/2011
Date Data Arrived at EDR: 06/29/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 9

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/31/2011
Date Data Arrived at EDR: 05/31/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 38

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/31/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/19/2011
Date Data Arrived at EDR: 04/20/2011
Date Made Active in Reports: 05/17/2011
Number of Days to Update: 27

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/20/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/20/2011
Date Data Arrived at EDR: 06/21/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 24

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/20/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 11/22/2010
Date Data Arrived at EDR: 03/03/2011
Date Made Active in Reports: 03/24/2011
Number of Days to Update: 21

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 06/29/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 05/29/2009
Date Data Arrived at EDR: 06/01/2009
Date Made Active in Reports: 06/15/2009
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 07/08/2011
Next Scheduled EDR Contact: 09/19/2011
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/31/2009
Date Data Arrived at EDR: 08/31/2009
Date Made Active in Reports: 09/18/2009
Number of Days to Update: 18

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 05/31/2011
Date Data Arrived at EDR: 05/31/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 38

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/31/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/31/2011
Date Data Arrived at EDR: 05/31/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 38

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/31/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/09/2011
Date Data Arrived at EDR: 06/29/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 9

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/20/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/09/2011
Date Data Arrived at EDR: 07/01/2011
Date Made Active in Reports: 07/13/2011
Number of Days to Update: 12

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/20/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/05/2011
Date Data Arrived at EDR: 04/06/2011
Date Made Active in Reports: 05/12/2011
Number of Days to Update: 36

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 06/13/2011
Date Data Arrived at EDR: 06/14/2011
Date Made Active in Reports: 07/13/2011
Number of Days to Update: 29

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 04/26/2011
Date Data Arrived at EDR: 06/14/2011
Date Made Active in Reports: 07/15/2011
Number of Days to Update: 31

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/24/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 04/01/2011
Date Data Arrived at EDR: 04/07/2011
Date Made Active in Reports: 05/12/2011
Number of Days to Update: 35

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/08/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/24/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 04/26/2011
Date Data Arrived at EDR: 05/03/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 43

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/25/2011
Date Data Arrived at EDR: 06/21/2011
Date Made Active in Reports: 07/13/2011
Number of Days to Update: 22

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/21/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 04/26/2011
Date Data Arrived at EDR: 05/03/2011
Date Made Active in Reports: 06/20/2011
Number of Days to Update: 48

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 07/08/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 05/12/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 34

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/04/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/26/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/22/2010
Date Made Active in Reports: 08/26/2010
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/19/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 05/12/2011
Date Made Active in Reports: 05/24/2011
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/12/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/15/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 06/24/2011
Date Made Active in Reports: 06/30/2011
Number of Days to Update: 6

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/31/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/06/2010
Date Made Active in Reports: 07/26/2010
Number of Days to Update: 20

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/20/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

PROPOSED TARGA STOCKTON TERMINALING & STORAGE FACI
NAVY DRIVE
STOCKTON, CA 95206

TARGET PROPERTY COORDINATES

Latitude (North):	37.94280 - 37˚ 56’ 34.1’’
Longitude (West):	121.3393 - 121˚ 20’ 21.5’’
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	645926.9
UTM Y (Meters):	4200563.5
Elevation:	8 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	37121-H3 STOCKTON WEST, CA
Most Recent Revision:	1987

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

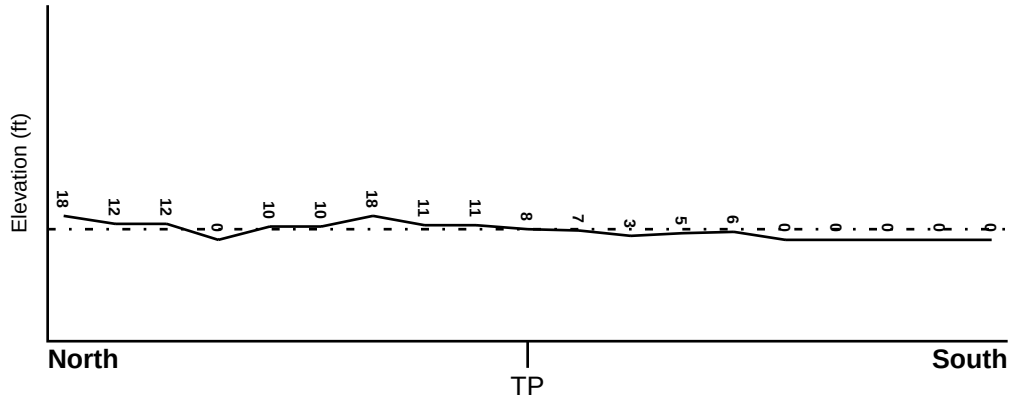
TOPOGRAPHIC INFORMATION

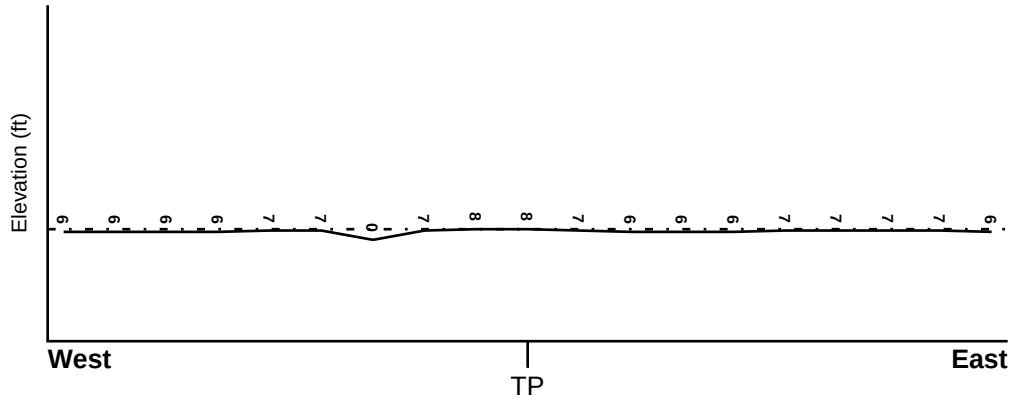
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 8 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
SAN JOAQUIN, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06077C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
STOCKTON WEST	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

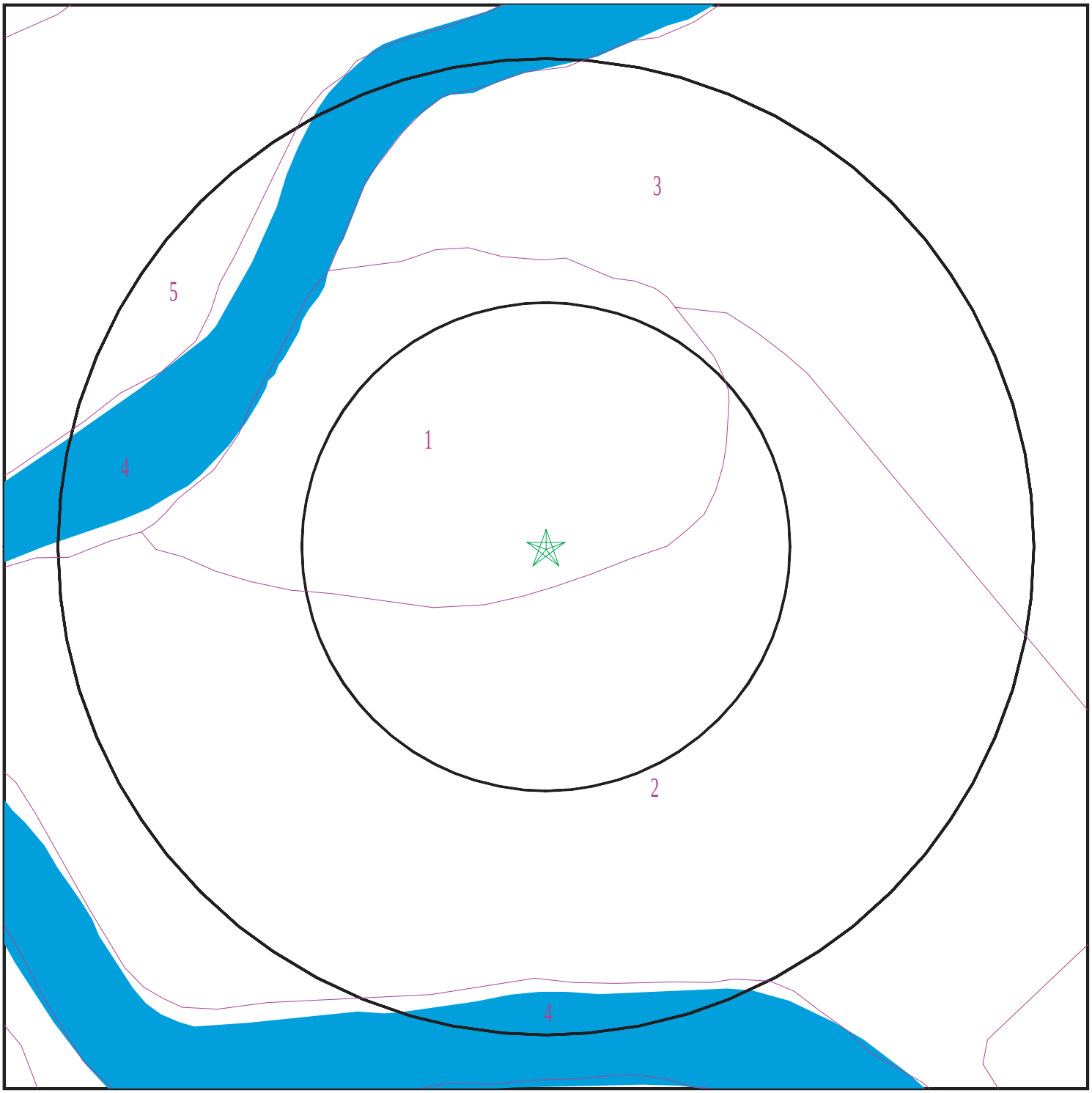
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 3127420.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Proposed Targa Stockton Terminaling & Storage Faci	CLIENT:	TRC
ADDRESS:	Navy Drive Stockton CA 95206	CONTACT:	Angela Chen
		INQUIRY #:	3127420.2s
LAT/LONG:	37.9428 / 121.3393	DATE:	July 19, 2011 7:33 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: DELLO

Soil Surface Texture: sand

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Very poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 107 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	20 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6
2	20 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6

Soil Map ID: 2

Soil Component Name: MERRITT

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 153 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.9
2	14 inches	42 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.9
3	42 inches	59 inches	stratified loamy fine sand to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.9

Soil Map ID: 3

Soil Component Name: YELLOWLARK

Soil Surface Texture: gravelly loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 107 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0 Min: 0	Max: Min:
2	7 inches	38 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0 Min: 0	Max: Min:
3	38 inches	46 inches	very gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0 Min: 0	Max: Min:
4	46 inches	53 inches	gravelly clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0 Min: 0	Max: Min:
5	53 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0 Min: 0	Max: Min:
6	59 inches	61 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0 Min: 0	Max: Min:

Soil Map ID: 4

Soil Component Name: Water

Soil Surface Texture: gravelly loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 5

Soil Component Name: MERRITT

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 153 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 9 Min: 7.9
2	16 inches	48 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 9 Min: 7.9
3	48 inches	59 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 9 Min: 7.9

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	USGS3222003	1/8 - 1/4 Mile ENE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

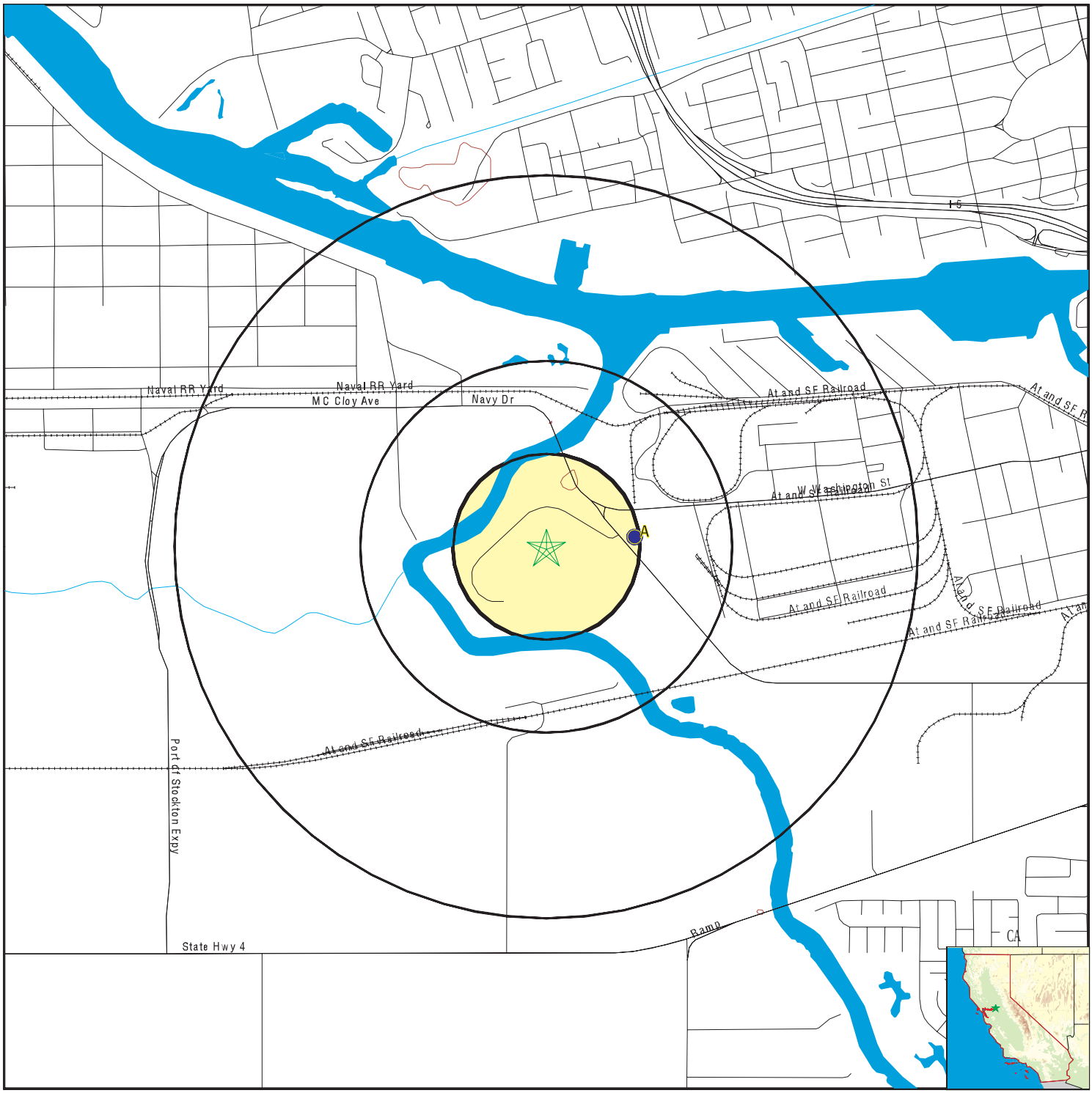
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	CADW40000038727	1/8 - 1/4 Mile East
A3	CADW40000038725	1/8 - 1/4 Mile East

PHYSICAL SETTING SOURCE MAP - 3127420.2s



County Boundary
Major Roads
Contour Lines
Earthquake Fault Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location
HD Closest Hydrogeological Data
Oil, gas or related wells

N

SITE NAME:	Proposed Targa Stockton Terminaling & Storage Faci	CLIENT:	TRC
ADDRESS:	Navy Drive Stockton CA 95206	CONTACT:	Angela Chen
		INQUIRY #:	3127420.2s
LAT/LONG:	37.9428 / 121.3393	DATE:	July 19, 2011 7:33 pm

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Map ID Direction Distance Elevation	Database	EDR ID Number
A1 **ENE** **1/8 - 1/4 Mile** **Lower**	**FED USGS**	**USGS3222003**

Agency cd:	USGS	Site no:	375638121200301
Site name:	001N006E08R002M		
Latitude:	375638	EDR Site id:	USGS3222003
Longitude:	1212003	Dec lat:	37.943813
Dec lon:	-121.33522472	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	077
Country:	US	Land net:	NWSESES08T01NR06EM
Location map:	STOCKTON WEST	Map scale:	24000
Altitude:	5.00		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	2.5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	San Joaquin Delta. California. Area = 938 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19680116
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	FLOOD-BASIN DEPOSITS		
Well depth:	114	Hole depth:	135
Source of depth data:	Not Reported		
Project number:	8479423710		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1979-05-02
Water quality data end date:	1979-05-02	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

A2 **East** **1/8 - 1/4 Mile** **Lower**	**CA WELLS**	**CADW40000038727**

Longitude:	-121.3338
Latiude:	37.943
Stwellno:	01N06E08R002M
Districtco:	7
Welluseco:	I
Countyco:	39
Gwcode:	502201
Site id:	CADW40000038727

Map ID Direction Distance Elevation	Database	EDR ID Number
A3 **East** **1/8 - 1/4 Mile** **Lower**	**CA WELLS**	**CADW40000038725**

Longitude:	-121.3337
Latiude:	37.9429
Stwellno:	01N06E17A001M
Districtco:	7
Welluseco:	Z
Countyco:	39
Gwcode:	502201
Site id:	CADW40000038725

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
95206	5	0

Federal EPA Radon Zone for SAN JOAQUIN County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 95206

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.300 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Proposed Targa Stockton Terminaling & Storage Faci

Navy Drive

Stockton, CA 95206

Inquiry Number: 3127420.3

July 19, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

7/19/11

Site Name:
Proposed Targa Stockton
Navy Drive
Stockton, CA 95206

Client Name:
TRC
167 Filbert Street
Oakland, CA 94607

EDR Inquiry # 3127420.3

Contact: Angela Chen

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by TRC were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Proposed Targa Stockton Terminaling &
Address: Navy Drive
City, State, Zip: Stockton, CA 95206
Cross Street:
P.O. # NA
Project: 185908.0001.0000/1
Certification # 7D52-46FB-8FAC

Sanborn® Library search results
Certification # 7D52-46FB-8FAC

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Proposed Targa Stockton Terminaling & Storage Faci
Navy Drive
Stockton, CA 95206

Inquiry Number: 3127420.8
July 19, 2011

The EDR Property Tax Map Report

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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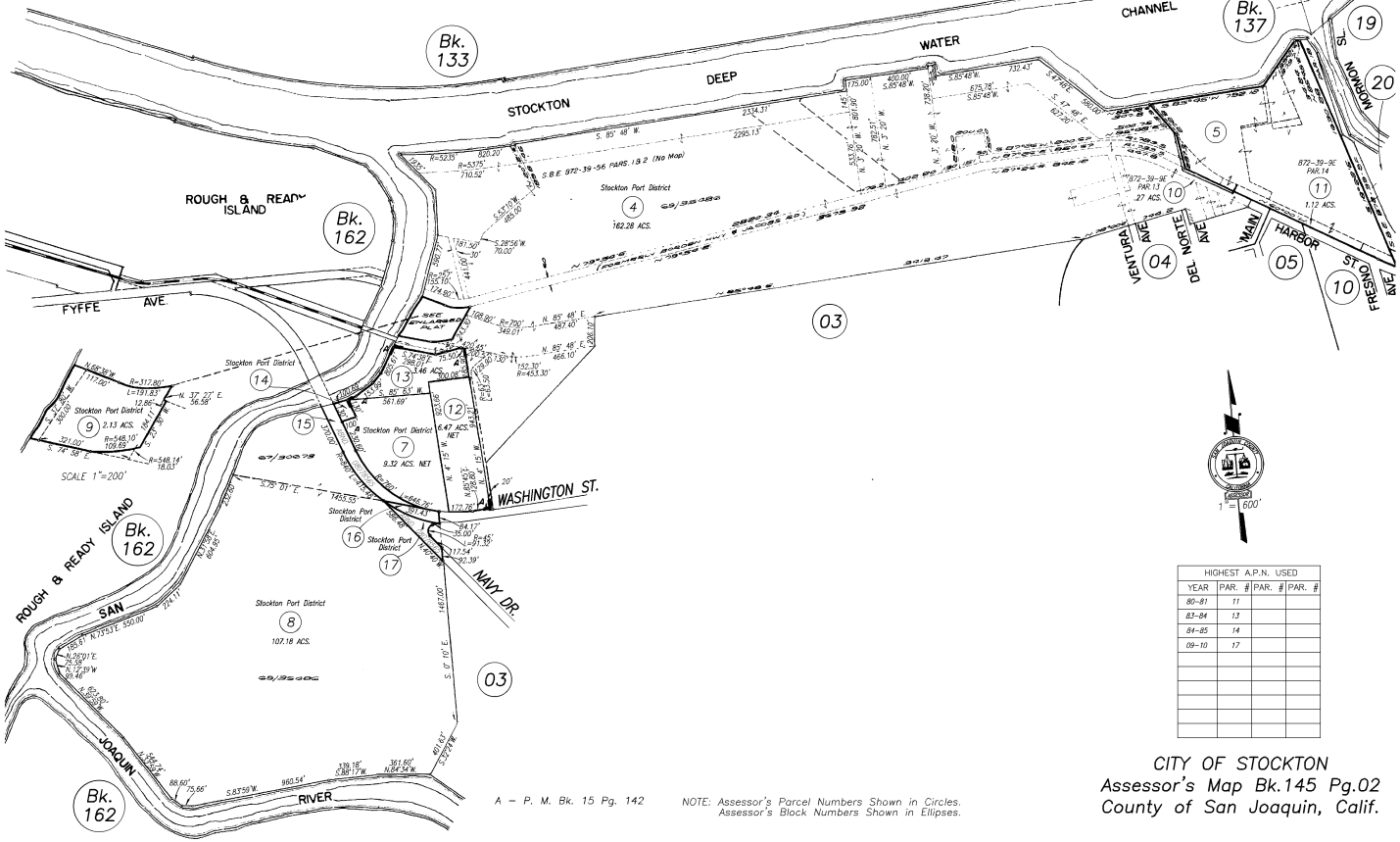
POR. OF SECS. 8, 9 & 17 T.1N. R.6E., M.D.B.&M.

THIS MAP IS FOR ASSESSMENT USE ONLY

145–02



HIGHEST A.P.N. USED			
YEAR	PAR. #	PAR. #	PAR. #
80–81	11		
83–84	13		
84–85	14		
09–10	17		

A – P. M. Bk. 15 Pg. 142

NOTE: Assessor's Parcel Numbers Shown in Circles. Assessor's Block Numbers Shown in Ellipses.

CITY OF STOCKTON
Assessor's Map Bk.145 Pg.02
County of San Joaquin, Calif.

Proposed Targa Stockton Terminaling & Storage Faci
Navy Drive
Stockton, CA 95206

Inquiry Number: 3127420.7
July 21, 2011

The EDR Environmental LienSearch™ Report

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

The EDR Environmental LienSearch™ Report

The EDR Environmental LienSearch Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

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with any questions or comments.

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The EDR Environmental LienSearch™ Report

TARGET PROPERTY INFORMATION

ADDRESS

Navy Drive
Proposed Targa Stockton Terminaling & Storage Faci
Stockton, CA 95206

RESEARCH SOURCE

Source 1:

San Joaquin county recorder
San Joaquin, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	Deed
Title is vested in:	Stockton Port District
Title received from:	United Sates of America
Deed Dated	8/4/1993
Deed Recorded:	9/10/1993
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	see exhibit
Miscellaneous Comments:	na
Legal Description:	see exhibit
Legal Current Owner:	Stockton Port District
Property Identifiers:	14502008
Comments:	see exhibit

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

Deed Exhibit 1

93104851

SAN JOAQUIN COUNTY
RECORDER'S OFFICE
JAMES M. JOHNSTONE

3

93 SEP 10 PM 2:37

RECORDED AT REQUEST OF
U.S. Army Eng.
FEE EXEMPT

WHEN RECORDED RETURN TO:
DISTRICT ENGINEER
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
ATTN: REAL ESTATE DIVISION
1325 J STREET
SACRAMENTO, CALIFORNIA 95814

No Documentary transfer tax due

Attorney-Advisor

QUITCLAIM DEED

THIS INDENTURE, made and entered into between the **UNITED STATES OF AMERICA**, hereinafter referred to as Grantor, acting by and through the Secretary of the Army, under and pursuant to the authority contained in 33 U.S.C. 558b, 52 Stat. 804, June 20, 1938, and the **STOCKTON PORT AUTHORITY**, hereinafter referred to as Grantee.

WITNESSETH THAT:

WHEREAS, pursuant to the contract for the Exchange of Perpetual Easements, Exchange Agreement No. DACW05-9-91-514, entered into between the Grantor and Grantee on the 4TH day of AUGUST, 1993, the Grantor, for and in consideration of all the terms, covenants and conditions of the Exchange contract and for the conveyance to it by the Grantee of certain property, does and by these presents heroby release and forever quitclaim unto the said Grantee, and to its assigns, all right, title, interest, claim or demand of the Grantor in and to the following described land, lying in the County of San Joaquin, State of California, to wit:

For Legal Description, See Exhibit "A"

TO HAVE AND TO HOLD the above quitclaim premises, together with all the hereditaments and appurtenances thereunto belonging or in any way appertaining to the said Grantee and its assigns forever.

This conveyance is not subject to the provisions of 10 U.S.C. 2662.

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed in its name and the seal of the Department of the Army to be affixed this 4TH day of AUGUST, 1993.

THE UNITED STATES OF AMERICA

By: John W. Shannon

John W. Shannon
Acting Secretary of the Army

93104851

PARCEL NO. 4-S.

All that portion of that certain real property situate, lying and being in the County of San Joaquin, State of California, described as parts of Sections Eight (8) and Seventeen (17), Township One (1) North, Range Six (6) East, M.D.B. & M., east of the San Joaquin River, and more particularly described as follows, to-wit:

Beginning at a point approximately ten feet west of the westerly side of a north and south drain ditch, which point bears S 0° 10' E 532.33 feet from a point also approximately ten feet west of the westerly side of the above mentioned drain ditch, said last above mentioned point being near the junction of the above mentioned ditch with a main east and west drain ditch and bearing S 44° 47' 23" E, 1689.44 feet from an iron pipe which marks the center of Section Eight (8), Township One (1) North, Range Six (6) East, M.D.B. & M., and also bearing S 18° 19' 25" W, 973.40 feet from the junction of the northerly boundary line of the Borden Highway with the easterly boundary line of the road right of way to the Edward A. Cureton property, said road right of way having been conveyed to Edward A. Cureton by Frank S. Boggs and Katherine Q. Boggs, his wife, by deed dated June 9, 1921, and recorded in Book "A" of Deeds, Vol. 472, Page 35, San Joaquin County Records; thence from the point of beginning, which point is also the northeast corner of the parcel herein described, S 0° 10' E, 1487.70 feet following a line parallel to and approximately ten feet west of the westerly side of the above mentioned north and south drain ditch to a point which is approximately opposite the southerly end of the last above mentioned drain ditch; thence S 32° 24' W, 401.63 feet, more or less, to a point on the low water line of the right or easterly bank of the San Joaquin River; thence downstream following the said low water line of the right or easterly bank of the San Joaquin River, which passes through points connected by the following courses and distances: N 84° 28' W, 361.60 feet; thence S 88° 17' W, 339.18 feet; thence S 83° 59' W, 950.54 feet; thence N 82° 16' W, 75.66 feet; thence N 53° 07' W, 88.60 feet; thence N 33° 02' W, 544.74 feet; thence N 39° 59' W, 623.80 feet; thence N 12° 39' W, 99.46 feet; thence N 26° 01' E, 75.58 feet; thence N 64° 16' E, 185.61 feet; thence N 73° 53' E, 550.00 feet; thence N 51° 29' E, 224.11 feet; thence N 31° 58' E, 604.95 feet; thence N 25° 27' E, 232.62 feet, more or less, to a point; thence leaving the said low water line of the right or easterly bank of the San Joaquin River S 75° 01' E, 1455.55 feet, more or less, to the point of beginning, said parcel containing 99.00 acres, more or less.

All bearings are referred to true north.

EXHIBIT "A"

93104850

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed by the Quitclaim Deed dated 04 August 1993 from the UNITED STATES OF AMERICA and its assigns, to the STOCKTON PORT DISTRICT, a Municipal Corporation in the State of California, is hereby accepted by the undersigned officer on behalf of the STOCKTON PORT DISTRICT, provided the Grantor under said deed consents to the recordation thereof by its duly authorized officer.

9-9-93
DATE

ALEXANDER KRYGSMAN
Port Director
STOCKTON PORT DISTRICT

Proposed Targa Stockton Terminaling & Storage Faci
Navy Drive
Stockton, CA 95206

Inquiry Number: 3127420.6
July 20, 2011

The EDR-City Directory Abstract

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1906 through 2003. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 1320 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

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RESEARCH SUMMARY

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Year	Source	TP	Adjoining	Text Abstract	Source Image
2003	SBC PACIFIC BELL	-	X	X	-
1999	R. L. Polk Co., Publishers	-	X	X	X
1996	R. L. Polk Co., Publishers	-	X	X	X
1990	R. L. Polk Co., Publishers	-	X	X	X
1984	R. L. Polk Co., Publishers	-	X	X	X
1979	R.L. Polk CO.	-	X	X	X
1975	R.L. Polk CO.	-	X	X	X
1970	R. L. Polk Co., Publishers	-	X	X	X
1965	R. L. Polk Co., Publishers	-	-	-	-
1960	R. L. Polk Co., Publishers	-	-	-	-
1955	R. L. Polk Co.	-	-	-	-
1950	R. L. Polk Co., Publishers	-	-	-	-
1946	R. L. Polk Co., Publishers	-	-	-	-
1940	R. L. Polk Co., Publishers	-	-	-	-
1935	R. L. Polk Co. of California, Publishers	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1930	R. L. Polk Co. of California, Publishers	-	-	-	-
1925	R. L. Polk Co. of California, Publishers	-	-	-	-
1921	Polk-Husted Directory Co., Publishers	-	-	-	-
1916	Polk-Husted Directory Co.	-	-	-	-
1911	Polk-Husted Directory	-	-	-	-
1906	A. KINGSBURY CO	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

Navy Drive
Stockton, CA 95206

FINDINGS DETAIL

Target Property research detail.

No Addresses Found

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

NAVY DR

3000 NAVY DR

Year	Uses	Source	
1990	U S Dept Of Navy Naval Communications Sta	R. L. Polk Co., Publishers	Image pg. A11
	P G & E sub st	R. L. Polk Co., Publishers	Image pg. A11
1984	P G & E sub sta	R. L. Polk Co., Publishers	Image pg. A9
	U S Dept Of Navy Naval Communications Sta	R. L. Polk Co., Publishers	Image pg. A9

3001 NAVY DR

Year	Uses	Source	
1979	Delta Stations Inc	R.L. Polk CO.	Image pg. A7

3002 NAVY DR

Year	Uses	Source	
1970	Southern Pacific Pipe Lines Inc stockton terminal	R. L. Polk Co., Publishers	Image pg. A3

3003 NAVY DR

Year	Uses	Source	
2003	TESORO PETROLEUM CORP	SBC PACIFIC BELL	
1999	TESORO MARINE SERVICES	R. L. Polk Co., Publishers	Image pg. A13
	MARKETING & SUP gan l wrhsg	R. L. Polk Co., Publishers	Image pg. A13
	TESORO REFINING	R. L. Polk Co., Publishers	Image pg. A13
1996	TESORO PETROLEUM CORP	R. L. Polk Co., Publishers	Image pg. A1
1990	Tesoro Petroleum Co refining marketing & supply co	R. L. Polk Co., Publishers	Image pg. A11
1979	Aminoil U S A Bulk Terminal	R.L. Polk CO.	Image pg. A7
1975	Terminal	R.L. Polk CO.	Image pg. A5
	Burmah Oil & Gas Co Bulk	R.L. Polk CO.	Image pg. A5
1970	products	R. L. Polk Co., Publishers	Image pg. A3
	Signal Oil & Gas Co petroleum	R. L. Polk Co., Publishers	Image pg. A3

3005 NAVY DR

Year	Uses	Source	
1990	California Fuels oil & lubricants dlrs	R. L. Polk Co., Publishers	Image pg. A11

FINDINGS

Year	Uses	Source	
1984	California Fuels	R. L. Polk Co., Publishers	Image pg. A9
1975	Delta Stations Inc petroleum distr	R.L. Polk CO.	Image pg. A5
1970	Delta Stations Inc petroleum distr	R. L. Polk Co., Publishers	Image pg. A3

3015 NAVY DR

Year	Uses	Source	
1999	TERMINAL petro bik stns tmn 019 H	R. L. Polk Co., Publishers	Image pg. A13
	BULK PETROLEUM	R. L. Polk Co., Publishers	Image pg. A13
1996	TIME OIL CO 1150 CO	R. L. Polk Co., Publishers	Image pg. A1
1990	Time Oil Co petroleum producer & shipper	R. L. Polk Co., Publishers	Image pg. A11
1984	S M Merchandise	R. L. Polk Co., Publishers	Image pg. A9
	Time Oil Co	R. L. Polk Co., Publishers	Image pg. A9

3019 NAVY DR

Year	Uses	Source	
2003	HYDRO AGRI NORTH AMERICA INC	SBC PACIFIC BELL	
1999	AMERICA farm supplies	R. L. Polk Co., Publishers	Image pg. A13
	HYDRO AGRI NORTH	R. L. Polk Co., Publishers	Image pg. A13
1996	TRANSCALIFORNIA TERMINAL CORP	R. L. Polk Co., Publishers	Image pg. A1
1990	Transcalifornia Terminal Corp fertilizer stge & distr	R. L. Polk Co., Publishers	Image pg. A11
1984	Transcalifornia Terminal Corp	R. L. Polk Co., Publishers	Image pg. A9

3025 NAVY DR

Year	Uses	Source	
1990	Exxon Stockton Petroleum oil cc	R. L. Polk Co., Publishers	Image pg. A11
1984	Stockton Petroleum Co	R. L. Polk Co., Publishers	Image pg. A9
1979	Jamar Oil Distributors petroleum distr	R.L. Polk CO.	Image pg. A7
1975	Sunland Refining Corp petroleum distr	R.L. Polk CO.	Image pg. A5
1970	Sunland Refining Corp petroleum distr	R. L. Polk Co., Publishers	Image pg. A3

3040 NAVY DR

Year	Uses	Source	
1990	City Police Training Facility	R. L. Polk Co., Publishers	Image pg. A11
1984	City Police Training Facility	R. L. Polk Co., Publishers	Image pg. A9

3043 NAVY DR

Year	Uses	Source	
1990	Vacant	R. L. Polk Co., Publishers	Image pg. A11
1984	Landrum Chas	R. L. Polk Co., Publishers	Image pg. A9

FINDINGS

Year	Uses	Source	
1979	Landrum Charles	R.L. Polk CO.	Image pg. A7

W WASHINGTON ST

2825 W WASHINGTON ST

Year	Uses	Source	
1996	RIVERSIDE CEMENT CO	R. L. Polk Co., Publishers	Image pg. A2
1979	Riverside Cement Co distr	R.L. Polk CO.	Image pg. A8
	STOCKTON BELT R R TRACK	R.L. Polk CO.	Image pg. A8
1975	Riverside Cement Co distr	R.L. Polk CO.	Image pg. A6
	STOCKTON BELT R R TRACK	R.L. Polk CO.	Image pg. A6
1970	Applegate Drayage	R. L. Polk Co., Publishers	Image pg. A4
	Sierra Cement	R. L. Polk Co., Publishers	Image pg. A4
	STOCKTON BELT R R TRACKS	R. L. Polk Co., Publishers	Image pg. A4

2829 W WASHINGTON ST

Year	Uses	Source	
1990	Tri Delta Fertilizer Inc landscape gdnrs	R. L. Polk Co., Publishers	Image pg. A12

2835 W WASHINGTON ST

Year	Uses	Source	
1999	TRI DELTA FERTILIZER nitrogenous frtlzrs	R. L. Polk Co., Publishers	Image pg. A14
1996	BUSINESSES 28 HOUSEHOLDS	R. L. Polk Co., Publishers	Image pg. A2
	TRI DELTA FERTILIZER INC SALES	R. L. Polk Co., Publishers	Image pg. A2

2845 W WASHINGTON ST

Year	Uses	Source	
1999	TEX AS INDUSTRIES brck stn rltd mtr	R. L. Polk Co., Publishers	Image pg. A14

WASHINGTON W

2825 WASHINGTON W

Year	Uses	Source
2003	RIVERSIDE CEMENT STOCKTON TERMINAL	SBC PACIFIC BELL

2835 WASHINGTON W

Year	Uses	Source
2003	LESCO TRI DELTA FERTILIZER INC	SBC PACIFIC BELL

FINDINGS

WASHINGTON ST W

2845 WASHINGTON ST W

Year	*Uses*	*Source*	
1984	STOCKTON BELT R R TRACK	R. L. Polk Co., Publishers	Image pg. A10
	Riverside Cement Co distr	R. L. Polk Co., Publishers	Image pg. A10

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
Navy Drive	2003, 1999, 1996, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
2825 W WASHINGTON ST	2003, 1999, 1990, 1984, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
2825 WASHINGTON W	1999, 1996, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
2829 W WASHINGTON ST	2003, 1999, 1996, 1984, 1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
2835 W WASHINGTON ST	2003, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
2835 WASHINGTON W	1999, 1996, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
2845 W WASHINGTON ST	2003, 1996, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
2845 WASHINGTON ST W	2003, 1999, 1996, 1990, 1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
3000 NAVY DR	2003, 1999, 1996, 1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
3001 NAVY DR	2003, 1999, 1996, 1990, 1984, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
3002 NAVY DR	2003, 1999, 1996, 1990, 1984, 1979, 1975, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
3003 NAVY DR	1984, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
3005 NAVY DR	2003, 1999, 1996, 1979, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
3015 NAVY DR	2003, 1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
3019 NAVY DR	1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
3025 NAVY DR	2003, 1999, 1996, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906
3040 NAVY DR	2003, 1999, 1996, 1979, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906

FINDINGS

Address Researched	Address Not Identified in Research Source
3043 NAVY DR	2003, 1999, 1996, 1975, 1970, 1965, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925, 1921, 1916, 1911, 1906

Source Page Images Appendix

NANA PL *cont'd*
Address Zip+4 CarrRte Phone
1358 Carlson James H.. -6428 C023 825-5330
1364 Slater Frank -6428 C023 823-7091
1371 Hepburn Jeffery
J -6426 C023 239-1576
1372 Cook L -6428 C023 823-1016
Cook R L -6428 C023 823-1016
1377 Steele Denise S -6426 C023 825-4973
1395 Silva Thomas R -6426 C023 239-4191
1412 Vielma Blaz -6424 C023 239-0175
Vielma Maria -6424 C023 239-0175
HOUSEHOLDS 22

NANCY DR *(R)* 95366
421 Matthews John H -3346 R003 599-4544
448 Rose Edward -3348 R003 599-6051
509 Jennings D H -3301 R003 599-7359
629 Hogan Mark -3347 R003 599-7885
680 Voshall Robert -3349 R003 599-4724
698 Huffman K -3349 R003 599-3383
Huffman S -3349 R003 599-3383
699 Heath Brian -3347 R003 599-3788
710 Dell Pat -3310 R003 599-5142
Dell Sandy -3310 R003 599-5142
731 Morris Randy -3311 R003 599-4636
748 Swankhuisen
Henry -3310 R003 599-4932
769 Mulder John -3311 R003 599-3196
888 Lynn Gary -3316 R003 599-4911
910 Bowker R -3316 R003 599-5788
912 Consul James A -3316 R003 599-6867
938 Vandyke Orlin F -3355 R003 599-7303
939 Campbell Jim -3313 R003 599-6770
987 Vanotterloo James -3313 R003 599-6277
1047 Sparacino Lee -3354 R003 599-4642
1056 Gilliam William A -3317 R003 599-3781
HOUSEHOLDS 21

NANCY PL *(M)* 95337
1006 Mora Robert -9494 R007 239-3138
1014 Velasquez Gilbert
H Sr -9494 R007 239-4978
HOUSEHOLDS 2

NANTUCKET DR *(S)* 95209
9516 Whaley Fendel A -1444 C026 951-3175
9534 Harmon Michael
J -1444 C026 473-3374
9621 Seals Gregory S -1443 C026 472-9052
9622 Parrish Jeri -1442 C026 952-5533
Parrish Kevin -1442 C026 952-5533
9717 Miller Michael L -1441 C026 477-0333
9729 Hug George -1441 C026 957-5120
Hug Isabel -1441 C026 957-5120
HOUSEHOLDS 8

NANTUCKETT CIR *(M)* 95336
2007 Aquaro Raplh -9603 R004 825-5220
2016 Delatorre Humber -9603 R004 825-8613
2036 Valdez J -9603 R004 239-8625
Valdez L -9603 R004 239-8625
2084 Fleming Roxanna -9604 R004 824-0251
2092 Ochoa Elvira -9604 R004 824-0964
2093 LANDAU VINYL
SVC -9604 R004 239-1035
Pope Delbert -9604 R004 239-1035
BUSINESSES 1 HOUSEHOLDS 7

NAOMI COCHRAN DR *(S)* 95206
107 Aspurias Adelai R -3139 C016 465-4051
125 Cepeda David -3139 C016 463-7604
136 Munoz Joseph R -3139 C016 465-5457
137 Madayag Ricardo
A -3139 C016 466-2373
156 Guillena Ruffino -3139 C016 465-5559
HOUSEHOLDS 5

NAPA RIVER DR *(S)* 95206
2008 Callaway Beverly -4655 C017 463-9411
Callaway David -4655 C017 463-9411
2037 Sicsic Alberto J -4658 C017 463-6805
2049 Padre Procer -4658 C017 948-1940
2124 Padre Ronnie T -4657 C017 948-0864
HOUSEHOLDS 5

NARCISSUS RD *(E)* 95320
26679 Lial Joe -9406 R002 838-7731
26847 Servaes Mark -9406 R002 838-6741
Servaes Tracy -9406 R002 838-6741
HOUSEHOLDS 3

NASSANO DR *(S)* 95212
8884 Brown Almeda -2326 C005 931-1141
Brown Robert W -2326 C005 931-1141
8948 Nakashima
William -2326 C005 931-3023
8957 Ball Robert C -2339 C005 931-4951
9061 Rice Norman C -2325 C005 931-3121
9066 Farr Edward S -2327 C005 931-2483
9154 THOMAS
KOOYMAN &
ASSOC -2334 C005 931-6465
9209 Stevens Fred -2329 C005 931-2133
9212 Fisher James J -2330 C005 931-1882
9245 Hogan Carole B -2329 C005 931-5734
Hogan James R -2329 C005 931-5734
9263 McCarty B T -2329 C005 931-1732
BUSINESSES 1 HOUSEHOLDS 11

NATALIE LN *(TR)* 95376
625 Silbert Richard Jr -4676 C022 832-2936
HOUSEHOLDS 1

NATHELLE LN *(LO)* 95240
13457 Howard William
H -9458 R005 931-4202
HOUSEHOLDS 1

NAVAJO CT *(M)* 95336
5744 Camden Robert
W -2523 C033 823-2264
HOUSEHOLDS 1

NAVAJO DR *(S)* 95209
1603 Hightower Bettie -1333 C027 478-7833

NAVAJO DR *cont'd*
Address Zip+4 CarrRte Phone
Hightower James -1333 C027 478-7833
1716 Teixeira Manuel -1335 C027 477-8873
1717 Phearson
Deborah G -1334 C027 952-5772
1723 Garcia B E -1334 C027 951-0586
HOUSEHOLDS 5

NAVAJO WAY *(M)* 95336
14401 Crockett Dave -2545 C033 823-3365
14414 Reid Thomas K -2546 C033 823-4830
14434 Henderson Jerry
L -2546 C033 982-0723
14467 Richardson
Carolyn -2545 C033 239-1593
Richardson Larry
E -2545 C033 239-1593
14474 Bennett B R -2546 C033 239-3174
14495 James Abe -2545 C033 239-1656
14592 Willis Craig -2572 C033 239-2727
Willis Judith -2572 C033 239-2727
14637 Pratt Donald -2524 C033 823-2662
HOUSEHOLDS 10

NAVONE RD *(S)* 95215
3301 US INTEC INC -9312 R003 931-1277
3901 DOWN RIVER
FOREST
PRODUCTS INC -9311 R003 931-0917
BUSINESSES 2

NAVY DR *(S)* 95206
817 MOTEL 6 -1122 C009 946-0923
825 INTERSTATE
INTERNATIONAL
INC -1169 C009 944-5821
VALLEY
PETERBILT
INC -1169 C009 462-1794
1002 VILLALOBOS
PALLETS -1166 C009 463-2804
1004 MISTER SPEAR
HOUSE-ASPARAGUS
-1166 C009 464-5365
1044 MISSION
PALLET CO -1166 C009 467-4039
1240 STOCKTON
SCAVENGER
ASSN INC -1167 C009 946-5721
1443 LIKA -4103 C009 948-0944
1624 DON
INVESTMENTS -1127 C009 463-0376
1627 RELIANCE
COLD STORAGE
CO -1126 C009 462-3750
1807 GENERAL
ENGINEERING
TECTONICS -1178 C009 469-9147
HELENA
CHEMICAL
CO -1178 C009 465-5777
NETH
CONSTRUCTION
INC -1178 C009 466-5038
1815 SILGAN
CONTAINERS
CORP -1178 C009 466-1031
1903 D & V MACHINE
SHOP & PUMP
CO -1141 C009 948-0925
TRACTOR
PLOW INC -1141 C009 466-1105
1905 STOCKTON
PETROLEUM
CO -1141 C009 462-8707
2005 LAIDLAW
TRANSIT INC -1142 C009 466-4706
2059 NELSON READY
MIX CONCRETE
CO -1142 C009 466-2884
QUALITY
CONTROL
INSPECTION
INC -1142 C009 466-8378
2191 MBP-OLYMPIAN
OIL -1143 C009 943-2011
2211 CONTECH -1144 C009 941-8324
CONTRACT
COATINGS
CORP -1144 C009 463-0914
2219 MEL'S AUTO
DISMANTLERS -1144 C009 462-8394
2313 FREDERICKSEN
TANK LINES -1145 C009 948-0260
STOCKTON
SANITARY
WASH
RACK -1145 C009 546-1935
2324 PDM STROCAL
INC -1161 C009 948-4600
2345 DEBCO AUTO
WRECKING -1145 C009 466-0161
2403 STOCKTON
TARPAULIN &
UPHLSRY -1146 C009 948-2970
2500 MUNICIPAL
UTILITIES-TRAINING
-1147 C009 937-8723
STOCKTON
UTILITIES
DEPT -1147 C009 937-8750
WATER &
SEWER
DIV -1147 C009 937-8701
2711 LEARNER CO -1148 C009 948-3498
2941 S T SVC -1149 C009 943-5662
WILLIAMS TANK
LINES INC -1149 C009 944-5613
2947 SANTA FE
PACIFIC
PIPELINES INC -1149 C009 465-7369
3003 TESORO
PETROLEUM
CORP -1150 C009 466-8800
3015 TIME OIL CO -1150 C009 462-3848
3019
TRANSCALIFORNIA
TERMINAL
CORP -1150 C009 466-0942
ZIP CODE 95203
3505 ALTAS BULK
CARRIERS -1001 C013 941-0608
3515 B RAMOS OIL
CO -1001 C013 465-6255
SHELL OIL CO -1001 C013 466-6941
BUSINESSES 42

N NEELEY RD *(LO)* 95242
Address Zip+4 CarrRte Phone
13649 Meath Robert H -9573 R003 464-3753
13721 Foletta David -9573 R003 368-4693
Foletta Don -9573 R003 339-8575
Foletta Wayne -9573 R003 369-0775
13859 Christopherson
Chris -9573 R003 368-0390
13860 Weed Michael
G -9573 R003 368-8522
14245 Golf B M -9573 R003 334-3837
HOUSEHOLDS 7

NEHEMIAH RD *(M)* 95336
1411 Brown David K -8591 R004 239-3152
HOUSEHOLDS 1

NEIL CT *(FC)* 95231
634 Jackson A J -9717 R001 982-0907
653 Baylon E -9717 R001 982-0369
669 Perez Ramon -9717 R001 982-0900
690 Erion Robert L -9717 R001 982-0847
691 Howard R C -9717 R001 982-1183
HOUSEHOLDS 5

NELLIS ST *(S)* 95205
1538 ALFREDO'S
AUTO REPAIR -4201 C014 942-0341
MALDONADO'S
CUSTOM
BODY -4201 C014 937-9501
MARTIN'S AUTO
BODY -4201 C014 948-2759
BUSINESSES 3

NELSON RD *(S)* 95215
7240 Goodrich Larry -9644 R004 942-2263
Goodrich Sandra -9644 R004 942-2263
7588 Andrade Manuel
B Jr -9644 R004 948-2476
7857 Palmer Kenneth
W -9557 R004 948-5611
8220 Newhall William -9557 R004 465-6113
HOUSEHOLDS 5

NEMAHA WAY *(S)* 95206
2616 Moss William -6012 C003 547-9353
2688 Arroyo Francis -6012 C003 941-9379
2710 Boateng S A -6012 C003 941-2881
2720 Vu Ha -6012 C003 939-1140
2825 Suttora Steve -6011 C003 941-9121
HOUSEHOLDS 5

NEPLUS CT *(LO)* 95242
321 Bristow Lila -2956 C013 334-4706
Kruppe Timothy -2956 C013 367-3650
Watson A B -2956 C013 334-3330
Zahorowski J -2956 C013 339-1403
Zahorowski R -2956 C013 339-1403
331 Lozano Jo -2955 C013 334-2817
HOUSEHOLDS 6

NESTLE WAY *(LA)* 95330
2 NESTLE
DISTRIBUTION
CTR -9707 R003 983-3500
BUSINESSES 1

S NETHERTON AVE *(S)* 95205
416 Hunt Jessie -6600 C032 464-7888
432 Liggins James H -6600 C032 465-6060
603 Brown Steven E -6625 C032 943-6452
615 Lujan Robert -6625 C032 463-3391
701 Moran Jennie -6625 C032 464-1938
Moran Manuel -6625 C032 464-1938
752 Williams Byron D -6628 C032 465-1909
907 Chavez Salvad -7259 C032 469-0964
Presley F W -7259 C032 464-0479
925 Wade Kathy -7259 C032 466-5722
Wade Kenneth -7259 C032 466-5722
926 Starr John G -7209 C032 465-0511
1010 Shotwell Ida -7209 C032 463-6523
2259 Chanthakone
Khamfe -7836 C029 465-4734
HOUSEHOLDS 14

NEUBOURG CT *(S)* 95210
2620 Gallion Gregory -3219 C053 472-0382
Ricketts P -3219 C053 472-0382
HOUSEHOLDS 2

NEUBOURG DR *(S)* 95210
8322 Low Wai H -3221 C053 472-9919
8329 Guerrero Jose -3220 C053 952-6030
8358 Fortes Placido U -3221 C053 957-3179
Molina Jonathan -3221 C053 474-1681
8450 Hunt James R -3223 C053 478-6637
HOUSEHOLDS 5

NEUGEBAUER RD *(S)* 95206
10807 Neugebauer
Charles -9614 R005 464-3986
11255 Stefani R -9614 R005 465-9642
12800 JOAN
PASSAGLIA
FARM -9614 R005 464-7004
12888 TAKE FIVE
CHARTERS -9663 R005 948-1712
TURNER CUT
RESORT -9663 R005 946-9409
Hargis Cyrus -9663 R005 948-6339
Hargis Dorothy -9663 R005 948-6339
Kenney Donald
A -9663 R005 941-4467
Lowenstein F A -9663 R005 943-6105
Moya Arnold -9663 R005 462-3141
Quesenberry Ely -9663 R005 465-5427
Stumpf David -9663 R005 465-0527
Ulander George -9663 R005 464-6287
BUSINESSES 3 HOUSEHOLDS 10

NEUHARTH DR *(LO)* 95240
40 COTTAGE
BAKERY'S
PASTRY -6331 C038 333-8044

NEUHARTH DR *cont'd*
Address Zip+4 CarrRte Phone
BUSINESSES 1

NEVADA ST *(M)* 95337
606 Arp Lynn -5420 C002 825-1545
Arp Wayne -5420 C002 825-1545
607 Cipponeri Barney -5419 C002 823-3647
609 Cortez Jose -5419 C002 825-1891
610 Worley Dan -5420 C002 239-5504
621 Miller Larry W -5419 C002 823-9891
624 Gamez Mary -5420 C002 239-2259
Gamez Ruben P -5420 C002 239-2259
629 Alvarado Ismael -5419 C002 239-9291
716 Collins Bill -5422 C002 823-6280
717 Moody Robert -5421 C002 823-4806
730 Canady Lonnie -5422 C002 825-5755
Canady Teresa -5422 C002 825-5755
737 Wolfe John F -5421 C002 823-7960
742 Grinslade William
L -5422 C002 825-8707
744 Gomez Juan D -5422 C002 823-3058
748 Binns W L -5422 C002 823-6555
812 Shackelford Jeff -5328 C002 823-5462
824 Johnson Raymond -5328 C002 239-2889
825 Devalle Margaret -5327 C002 823-3372
831 Wyatt Arthur -5327 C002 823-6922
834 Phillips Russell H
I -5328 C002 823-3207
840 Samples John -5353 C002 823-4321
Samples Tricia -5353 C002 823-4321
858 Vanmeter Tara M -5328 C002 239-9919
864 Fiore Pete -5328 C002 823-3385
HOUSEHOLDS 26

NEVADA ST *(R)* 95366
718 Hoekstra Robert -2166 C002 599-2089
721 Laurence H -2148 C002 599-4668
737 Dejong Philip -2148 C002 599-6062
759 McNichols Donald -2148 C002 599-4754
McNichols Lori -2148 C002 599-4754
HOUSEHOLDS 5

NEVADA ST *(S)* 95206
1830 Watson Tonia -4667 C017 467-3577
2049 Tabor Ced -4669 C017 469-3960
2082 Kemp Linda -4669 C017 462-9751
HOUSEHOLDS 3

NEVILLE WAY *(S)* 95209
9216 Chandra Ajay -1549 C022 476-1269
Chandra Nita -1549 C022 476-1269
9323 Kearney Kim -1550 C022 474-8132
Kearney William -1550 C022 474-8132
9335 Soulsby R -1550 C022 957-7141
9417 Evans Philip N -1548 C022 957-1540
9424 Luu Hodiep -1547 C022 951-7063
9433 Ragasa Richard
Sr -1548 C022 951-2805
HOUSEHOLDS 8

NEVINS DR *(LO)* 95242
512 Bjorkquist G W -7507 C015 369-2273
513 Merck Donavan A -7506 C015 369-1224
524 Avey John -7507 C015 369-3689
531 Veil R -7506 C015 369-4829
607 Baumgartner
Rhonda -3568 C015 369-0812
Baumgartner
William -3568 C015 369-0812
615 Ebnet M R -3568 C015 369-8844
621 Baumbach Robert -3568 C015 334-1688
624 Kausen Victor -3567 C015 339-1716
630 Bogren Bryant -3567 C015 333-0405
HOUSEHOLDS 10

NEW HORIZONS DR *(M)* 95336
1760 Cowan Melissa -4955 C009 239-5205
Fry Willard B -4955 C009 239-3090
1761 Tse Norman -4954 C009 825-7451
1845 Cole D -4957 C009 823-0106
1850 Johnson Kelly -4956 C009 239-9550
HOUSEHOLDS 5

NEW YORK DR *(S)* 95210
8219 Westcott Horace
D -2114 C025 952-6023
8228 Batres Effie -2121 C025 951-7760
Batres Richard -2121 C025 951-7760
8237 Richard John R -2114 C025 956-3750
Richard Ollie L -2114 C025 956-3750
8238 Krahmer Gary -2121 C025 951-0403
8243 Kinlonis James -2114 C025 952-2453
8255 Lowes F E -2114 C025 474-6544
8260 Matthews Owen
Jr -2121 C025 474-2283
8302 Gonzales
Leonard -2138 C025 473-2361
8303 Santistevan Joe -2139 C025 477-7821
8308 Hall P -2138 C025 952-8032
Hall R L -2138 C025 952-8032
8332 Savage Robert F -2138 C025 477-2972
8404 Rinzler E -2160 C025 952-0773
Rinzler M -2160 C025 952-0773
HOUSEHOLDS 16

NEWBERY CT *(S)* 95209
9016 Rose Brian -1748 C021 952-0371
Rose Claudia -1748 C021 952-0371
9033 Boyd Doris H -1749 C021 474-0342
HOUSEHOLDS 3

NEWBURY CIR *(LO)* 95240
2104 Siliverdis John -6613 C026 334-9417
2107 Lauber Jeff -6612 C026 334-5466
2108 Miller Bob L -6613 C026 369-4451
2112 Gervasi James J -6613 C026 368-9597
2115 Longo Vito A -6612 C026 334-5964
2123 Lewis D P -6612 C026 368-1193
2124 Wilbur Paul -6613 C026 334-6990
Wilbur Paul -6613 C026 369-1318
2131 Forkas Francis -6612 C026 334-4733
2132 Rempfer Rodney
L -6613 C026 334-0310
2142 Bradley George
M -6613 C026 369-3676
2150 Moellenberndt
Dan -6613 C026 368-4477
2158 Mueller Clarence
A -6613 C026 368-1212

NEWBURY CIR *cont'd*
Address Zip+4 CarrRte Phone
2162 Furniss Joyce -6613 C026 367-8893
Furniss Richard -6613 C026 367-8893
2168 Rexford M -6613 C026 339-9853
2171 Dean J -6612 C026 369-5576
Dean M -6612 C026 369-5576
2200 Schaffter R G -6615 C026 369-9030
2205 Pegg Stephen -6614 C026 334-3190
2213 Aaby O L -6614 C026 369-4687
2220 Beglau Arnold -6615 C026 334-1158
Beglau Jewel -6615 C026 334-1158
2225 Backman Albin A -6614 C026 369-8998
2237 Stacy Loren G -6614 C026 333-0084
2240 Lane Durward K -6615 C026 334-1149
Lane Jean -6615 C026 334-1149
2241 Baker Ralph L -6614 C026 367-9266
2245 Wilson E L -6614 C026 369-7815
2248 Lane Kevin -6615 C026 333-2187
2249 Hash Elbert J -6614 C026 334-0422
2256 Leach Jack -6615 C026 334-0385
Leach Tina -6615 C026 334-0385
HOUSEHOLDS 33

NEWBURY CT *(TR)* 95376
3626 Stoll Dan -8758 R010 833-7340
Stoll Katie -8758 R010 833-7340
3646 Maestas Don -8758 R010 832-7204
Maestas Lori -8758 R010 832-7204
3647 Gore Howard -8758 R010 835-5202
3687 PACIFIC
GREYSTONE
CORP -8758 R010 833-2224
Boggiano David -8758 R010 833-2203
Boggiano
Kimberly -8758 R010 833-2203
BUSINESSES 1 HOUSEHOLDS 7

NEWBURY DR *(TR)* 95376
3726 Altamirano Lloys -8751 R010 836-0119
HOUSEHOLDS 1

NEWBY RD *(S)* 95215
2127 Grimes Gary Sr -2031 C013 931-1369
HOUSEHOLDS 1

NEWCASTLE CT *(TR)* 95376
1244 Steele Thomas K -8336 R011 832-5561
HOUSEHOLDS 1

NEWCASTLE RD *(S)* 95215
7557 Fitch Audron W -9663 R006 464-5505
7650 FAWN
INDUSTRIES
INC -9663 R006 464-7777
YOUTH
AUTHORITY
-9663 R006 944-6011
YOUTH
AUTHORITY
TRAINING
CTR -9663 R006 944-1300
7833 Mills Joe E -9663 R006 465-9640
7983 Sellers J C -9663 R006 463-7695
Sellers Quanah -9663 R006 463-7695
BUSINESSES 3 HOUSEHOLDS 4

NEWFIELD RD *(LO)* 95240
9995 Ketcherside
Huston -9369 R004 368-0446
10461 Gunkel Owen
W -9370 R004 368-4668
HOUSEHOLDS 2

NEWGATE CT *(S)* 95210
8615 Gennoe Anthony -2056 C035 957-2912
Gennoe Lucinda -2056 C035 957-2912
8616 Artellan Joseph -2056 C035 477-9295
Artellan Linda -2056 C035 477-9295
8621 Roberts Bob -2056 C035 478-6400
8622 Ticer Alton L -2056 C035 952-0310
HOUSEHOLDS 6

NEWHALL CT *(S)* 95210
714 Tran Thi -1488 C035 474-7055
807 Tondee Phillip -1447 C035 473-2130
811 Yang Chong K -1447 C035 951-7711
814 Puga Rita -1447 C035 951-3336
Puga Robert -1447 C035 951-3336
815 Laforteza Dionic -1447 C035 956-6674
818 Graybill Barbara -1447 C035 952-5261
Graybill Dan -1447 C035 952-5261
819 Sohal Avtar -1447 C035 472-0954
HOUSEHOLDS 9

N NEWPORT AVE *(S)* 95205
1311 Cable Steven L -3586 C012 465-1473
1449 Maupin James -3574 C012 465-0663
1469 Byrd John -3574 C012 942-1230
1547 Matlock W J -3541 C012 466-9864
1631 Johnson I O -3543 C012 464-6077
HOUSEHOLDS 5

NEWPORT CT *(TR)* 95376
1801 Schroers Kurt A -2327 C033 835-8525
Schroers Linda -2327 C033 835-8525
1832 Cosme Margie -2328 C033 836-3101
Cosme Monroe -2328 C033 836-3101
1833 Durham Ruth -2327 C033 836-2103
1865 Scialabba Peter
W -2327 C033 835-3396
1881 Cembellin Vic -2327 C033 833-9999
HOUSEHOLDS 7

NEWPORT DR *(LO)* 95242
1806 Hodges J W -4724 C038 368-8113
HOUSEHOLDS 1

NEWTON RD *(S)* 95205
3300 MERCER
TRANSPORTATION
-2485 C026 943-7414
3400 MOORE TRUCK
LINES -2415 C026 466-3201
3416 MID-CAL
CONSTRUCTORS
-2415 C026 941-8421

<u>Details For:</u>	<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>
NAVY DR	1996	R. L. Polk Co., Publishers	-	X

WARMKE LN (S) 95206

Address Zip+4 CarrRte Phone
3337 Grajeda Stephen ... -5700 R010 983-1509
HOUSEHOLDS 1

WARREN AVE (S) 95204

2622 Craddock Wilda ... -3948 C021 463-4498
2643 Corley E ... -3947 C021 463-0849
HOUSEHOLDS 2

WARREN RD (LI) 95236

Powers Jesse ... 887-3131
8605 George S ... 887-2387
8694 Powers Kelly ... 887-3285
HOUSEHOLDS 3

WARREN RD (R) 95366

1555 GOLDEN WEST
NUTS INC ... -9532 R002 599-6193
BUSINESSES 1

S WARREN RD (R) 95366

22197 ALMOND
BLOSSOM
ADVERTISING ... -9602 R002 599-2107
22263 Hoff Jay H ... -9602 R002 599-2365
22357 Hoff Henry ... -9602 R002 599-4904
22655 Duncan Hiram ... -9602 R002 599-7313
22785 Scholten C ... -9602 R002 599-4375
22850 BROKEN
ARROW FEED &
SUPPLY ... -9602 R002 599-4661
22851 Mason D ... -9602 R002 599-5478
23110 Riemersma
Henry ... -9602 R002 599-4028
BUSINESSES 2 HOUSEHOLDS 6

WARWICK CT (S) 95207

3221 Mao Koen ... -1142 C017 957-0669
HOUSEHOLDS 1

N WASHINGTON AVE (M) 95336

115 Cross A ... -4843 C008 823-3209
122 Gibson Jody ... -4880 C008 239-9915
Vierra J J ... -4880 C008 823-7173
132 Bylow G L ... -4879 C008 823-4582
HOUSEHOLDS 4

S WASHINGTON AVE (M) 95336

120 Valverde Manuel
H ... -5831 C005 823-5206
127 Eichman Robert E ... -5830 C005 239-2140
HOUSEHOLDS 2

E WASHINGTON ST (R) 95366

McCutcheon
Dennis ... -2050 C002 599-2944
142 Visser Walter J ... -2051 C002 599-3281
151 Seitz N ... -2050 C002 599-7786
HOUSEHOLDS 3

E WASHINGTON ST (S) 95202

133 YUT WAH CAFE ... -3215 C007 462-1292
135 CASINO CLUB ... -3215 C007 462-7578
137 LIBRERIA
HISPANO-AMERICANA
... -3215 C007 462-8110
203 SAINT MARY'S
CHURCH ... -3216 C007 948-0661
333 SAN JOAQUIN
COUNTY GAIN
PRGRM ... -3200 C007 468-2222
SAN JOAQUIN
COUNTY
HUMAN
SVC ... -3200 C007 468-1000
433 RONG'S CHECK
CASHING ... -3013 C007 943-1285
437 YALE
APARTMENTS ... -3013 C007 463-9917

ZIP CODE 95205

1105 Martinez Emilio ... -5547 C003 464-5834
1123 Castillo Dagobe ... -5547 C003 937-9812
1131 Castillo Catali ... -5547 C003 547-9816
1321 Hang Yer ... -5564 C003 941-9850
1629 Lott Jack ... -5552 C003 465-4660
2051 Ramirez Tony ... -5616 C001 467-1062
2143 Eddens J ... -5618 C001 464-2771
2156 Vaca John C ... -5619 C001 465-6986
2174 Buenrostro
Enrique ... -5619 C001 948-2166
2227 Coronado Ruben ... -5663 C001 464-0311
2239 Ontiveros Joseph
P ... -5663 C001 464-6381
2244 White Powell C ... -5638 C001 465-6862
2252 Washington
Ephraim ... -5638 C001 465-4953
Washington Lillie ... -5638 C001 465-4953
2269 Henry E T ... -5663 C001 465-6200
Henry Wilhel ... -5663 C001 465-6200
2300
THESSALONIANS
BAPTIST
CHURCH ... -5639 C001 466-8401
2310 Gray J C ... -5639 C001 462-9450
2319 White R ... -5662 C001 946-4732
2320 Montes Maria L ... -5639 C001 463-0226
2330 Rodriguez L ... -5639 C001 933-9850
2335 Brown Virdell F ... -5662 C001 462-6213
2394 Bottini John ... -5639 C001 462-8191
2410 Smith J I ... -5640 C001 466-7611
2411 Uvalles Mike ... -5661 C001 463-4812
2420 Bible Bernice ... -5640 C001 463-0113
2498 Jauregui Horten ... -5640 C001 942-1872
Jauregui Jessie ... -5640 C001 942-1872

ZIP CODE 95215

3805 Wetengel
Russell B ... -5136 C019 546-0815
4043 EAST
WASHINGTON
MARKET ... -5140 C019 463-6834
4106 Pierce Opal ... -5143 C019 466-9104
4118 Pierce Wayne ... -5143 C019 948-5387
4400 LUCY'S BEAUTY
SALON ... -5149 C019 467-4944
4517 King Thomas P ... -5261 C021 464-8545

E WASHINGTON ST cont'd

Address Zip+4 CarrRte Phone
4610 KOREAN
BAPTIST
CHURCH-STOCKTON
... -5255 C021 464-2694
4711 Ward Leslie ... -5256 C021 464-0351
4814 Young Bob ... -5259 C021 467-4567
4910 CALIFORNIA
FAMILY
MEDICAL INC ... -5341 C021 942-0333
4939 WALKER'S
PIZZA & VIDEO ... -5340 C021 941-9177
5015 Duke Claudi ... -5342 C021 948-5809
5025 Caravalho Louis
Jr ... -5342 C021 467-0129
5038 GARDEN
ACRES
PENTECOSTAL
CHR ... -5357 C021 462-5196
5061 Ollis W ... -5358 C021 462-1458
5104 FAMILY
MARKET ... -5345 C021 943-1621
5119 Gomez Mario ... -5344 C021 464-2320
5235 Lopez Yolanda ... -5447 C021 467-8778
5313 Siojo Arsenio L ... -5449 C021 466-8713
5323 Pena Raphel ... -5449 C021 942-2537
5336 Mariano Javier ... -5450 C021 464-7849
5444 Trammell Wyatt ... -5452 C021 942-2386
5447 Davis Marion ... -5451 C021 948-2304
5454 Larson Cookie ... -5452 C021 948-5440
Larson John D ... -5452 C021 948-5440
5524 Duran Seledo ... -5454 C021 462-1366
5531 Grove Donald ... -5453 C021 465-6602
5541 Wolverton Dennis ... -5453 C021 469-9557
BUSINESSES 16 HOUSEHOLDS 48

N WASHINGTON ST (LO) 95240

12 Albor C R ... -2346 C011 366-1065
Radah Fathi M ... -2346 C011 369-2229
20 Bendrides Cristi ... -2354 C011 368-1664
Mueller Joyce E ... -2354 C011 368-9406
Naranjo Genove ... -2354 C011 368-5087
21 Rojas Sigifr ... -2372 C011 333-2474
22 Khan Fida ... -2329 C011 368-9372
110 Padran Nader ... -2330 C011 333-1837
112 Khan Ayub ... -2330 C011 368-8579
118 Ishida H ... -2330 C011 369-6600
216 Mondragon Maria ... -2355 C011 367-5819
Mondragon P ... -2355 C011 367-5819
219 Tompkins D ... -2386 C011 333-1010
235 PINE STREET
GARAGE ... -2331 C011 369-2106
320 AMERICAN
LEGION ... -0608 C028 368-1420
333 ARMY NATIONAL
GUARD ... -0607 C028 333-6957
US ARMY
NATIONAL
GUARD
RECRUIT ... -0607 C028 368-3501
BUSINESSES 4 HOUSEHOLDS 13

S WASHINGTON ST (LO) 95240

23 Carey Sheryl M ... -2939 C005 333-7159
104 Coburn Woodrow ... -2958 C005 368-5090
Crane Benton ... -2958 C005 368-3791
Okert B ... -2958 C005 368-2192
Wahl Lenard ... -2958 C005 367-9500
105 LOEL
COMMUNITY
SENIOR CTR ... -2940 C005 369-1591
LOEL
FOUNDATION
INC ... -2940 C005 368-2050
114 Egan Bruce ... -2941 C005 368-0934
125 HEALTH FOR
ALL INC ... -2940 C005 367-1552
310 Basra Dalbagh ... -4146 C005 367-1052
505 Diggins Esther ... -4135 C008 369-0018
515 Koehler John ... -4135 C008 369-2574
Meidinger Ruth ... -4135 C008 369-3991
518 Hernandez Ignanc ... -4136 C008 368-9824
607 Martinez Frank B ... -4137 C008 334-1867
717 Shawen Jack ... -4819 C008 333-2055
719 Garcia Antonio S ... -4852 C008 333-7103
720 Lopezgarcia
Agustin ... -4857 C008 369-9878
724 Prater T ... -4820 C008 367-4583
725 Zimmerman Bill ... -4819 C008 369-6778
728 Schnaible Arnold ... -4820 C008 369-2611
736 Ochoa Simon ... -4820 C008 369-1731
738 Venable William H ... -4820 C008 334-8657
814 Day C L ... -4855 C006 368-7481
Orndorf J ... -4855 C006 368-1158
815 Mendez Candida ... -4821 C006 368-1813
820 Pickett James B ... -4822 C006 368-2185
828 Peters Karen L ... -4822 C006 368-7751
838 Wood Larry A ... -4822 C006 334-1408
850 Migliardi Frank ... -4822 C006 369-1476
945 Oswald M H ... -5309 C043 369-4084
1245 Souza Frank X ... -5912 C034 368-3551
1300 Saeed Mosed A ... -1943 C034 367-0481
Sauer N ... -1943 C034 369-7034
1321 Larson J ... -5947 C034 367-5719
Larson Vic ... -5947 C034 334-4264
BUSINESSES 3 HOUSEHOLDS 33

W WASHINGTON ST (R) 95366

223 RIPONA MARKET ... -2073 C002 599-5403
Valasco Estela ... -2073 C002 599-5231
BUSINESSES 1 HOUSEHOLDS 1

W WASHINGTON ST (S) 95203

1845 LITTLE FLOCK
BAPTIST
CHURCH ... -2914 C013 462-3765
1848 Hodge Will ... -2933 C013 463-8197
1857 Lopez M G ... -2914 C013 948-0124
2040 HALL SUPPLY
CO ... -2918 C013 462-1269
2115 PM AG
PRODUCTS ... -2919 C013 466-4391
2201 AB XPRESS INC ... -2942 C013 462-0369
BRUSCO TUG &
BARGE ... -2942 C013 462-5534
CALAVERAS
CEMENT
CO ... -2942 C013 465-2624
COST PLUS
WORLD
MARKET ... -2942 C013 462-5400
DELTA BULK
TERMINALS
... -2942 C013 943-7252
FAST FOTO
LAB ... -2942 C013 464-2424

W WASHINGTON ST cont'd

Address Zip+4 CarrRte Phone
NICHOLAS
COMMUNICATION
... -2942 C013 462-5390
PEREIRA
PHOTOGRAPHY
... -2942 C013 466-0022
PORT OF
STOCKTON
... -2942 C013 946-0246
2305 COMMERCIAL
EXCHANGE
CLUB INC ... -2920 C013 466-0184
2321 BUDWAY
TRUCKING &
WAREHOUSING ... -2948 C013 469-7915
CARGILL INC
MOLASSES
... -2948 C013 462-2565
CEN CAL
CEMENT
CO ... -2948 C013 462-6252
EARL J MASON
ADVERTISING
... -2948 C013 466-8519
PHOENIX
PUBLICATIONS
... -2948 C013 469-2056
PHOENIX
TRAINING
AGENCY ... -2948 C013 469-2000
STOCTON
TRANSMODAL
INC ... -2948 C013 463-3280
TRANSMARINE
NAVIGATION
CORP ... -2948 C013 465-9599
TRANSWORLD
MARINE
SUPPLIES ... -2948 C013 465-1133
UAP PACIFEX ... -2948 C013 469-2083
2403 FOOD &
AGRICULTURE
DEPT ... -2944 C013 466-0441
2526 SWINERTON &
WALBERG CO ... -2952 C013 942-0171
2717 BAY SULFUR
CO ... -2900 C013 943-3414
2825 RIVERSIDE
CEMENT CO ... -2926 C013 948-0529
2835 TRI DELTA
FERTILIZER INC
SALES ... -2926 C013 942-0417
BUSINESSES 28 HOUSEHOLDS 2

WATERLOO RD (S) 95205

944 MI CASA ... -4239 C014 937-9266
969 SUPER SHOPS
AUTOMOTIVE
CTR ... -4242 C014 943-5488
1002 GORDON CLUB ... -4257 C014 946-9005
1031 UNION SAFE
DEPOSIT BANK ... -4256 C014 946-5078
1048 EDDIE'S PIZZA
CAFE ... -4263 C014 462-1113
1064 NENA'S CAFE ... -4264 C014 547-0217
1105 SIERRA AIRGAS ... -3733 C014 465-3429
1108 CALIFORNIA
FIREARMS ... -3700 C014 948-1421
GEORGE'S
SPORTS
CARDS &
CLLTBL ... -3700 C014 944-5627
LUNDY'S
NUTRITION
CTR ... -3700 C014 464-5738
VISUAL
CHANGES ... -3700 C014 467-4353
1115 STEAM
CLEANERS INC ... -3733 C014 943-0547
1117 EL AGUILA
FOOD
PRODUCTS INC ... -3733 C014 946-4137
1119 JOHN'S
DRAPERIES &
CARPETS ... -3733 C014 466-2864
1120 HARBOR
FREIGHT
TOOLS ... -3734 C014 467-7041
HEMENES
MARTIAL
ARTS ... -3734 C014 467-3878
WATERLOO
BINGO
HALL ... -3734 C014 462-1011
1121 ROLAND
CONSTRUCTION
INC ... -3733 C014 462-2687
1125 FURNITURE
CLEARANCE
CTR ... -3733 C014 944-9666
1140 CIGARETTE
STORE ... -3734 C014 467-4223
DAILEY
DONUTS ... -3734 C014 547-9680
KEN'S MOBILE
LOCKSMITH
... -3734 C014 466-5031
PIZZA HUT ... -3734 C014 467-1111
SHERMAN'S
CHINESE
FOOD ... -3734 C014 948-2288
1201 C & R AUTO
SALES ... -3735 C014 943-0535
1243 A-1
AMBULANCE &
PARAMEDIC
SVC ... -3735 C014 466-0223
1249 STAR MOTORS ... -3735 C014 463-5346
1400 VAN DEN
BERGH FOODS
CO ... -3743 C014 466-9580
1530 HAPPELL'S
PHARMACY ... -3738 C014 466-2522
1533 STOCKTON
METAL
RECYCLING ... -3742 C014 942-2267
STRAWN
ENTERPRISES
... -3742 C014 464-2322
1536 SAVE MART
SUPERMARKETS
... -3738 C014 466-5011
2116 AUTO TOYS ... -2911 C012 467-7811
2205 WESTERN
REFRIGERATION
... -2912 C012 464-0427
2224 A-1 FLOOR
COVERINGS ... -2913 C012 547-0296

WATERLOO RD cont'd

Address Zip+4 CarrRte Phone
CALIFORNIA
FLOOR
COVERING ... -2913 C012 466-4939
2232 PRECISION
AUTO REPAIR ... -2913 C012 463-2997
2239 Harrison Jap L ... -2912 C012 944-9137
2249 JOHN RAY CO ... -2912 C012 466-3561
2252 J & R LEE'S
CYCLES ... -2956 C012 463-8882
2272 CITY TIRE
AUTOMOTIVE
SVC ... -2956 C012 464-0549
2300 FOUR ALL
SEASONS
BEAUTY SALON ... -2915 C012 465-6767
LEE'S NAILS ... -2915 C012 944-0825
MAMA'S
ORIGINAL
PIZZA ... -2915 C012 463-4061
2305 P & L
BICYCLES
SALES & SVC ... -2914 C012 462-5603
2308 CENTRO
VALLEY
ARCHERY ... -2915 C012 469-2697
2309 HUB CAP KING ... -2914 C012 943-7762
2310 IRENE'S STYLE
SHOP ... -2915 C012 466-2500
2329 QUIK SELL
MOTORS ... -2914 C012 939-1009
2335 BOB'S BODY
SHOP ... -2914 C012 465-1987
2350 WATERLOO
BEACON
STATION ... -2954 C012 462-4569
2357 COLE TV ... -2952 C012 464-6085
2359 BRICE'S
POCKET BREAD ... -2952 C012 465-9866
2361 WANDA'S
CUSTOM
CAKES ... -2952 C012 465-8908
2370 WATERLOO
ROAD
RADIATOR &
AUTO ... -2953 C012 469-3775
2377 HOME SUPPLY
TOOL RENTAL
INC ... -2952 C012 465-2693
2382 PAZ AUTO &
TRUCK REPAIR ... -2953 C012 465-0652
2415 CHRISTY'S
RENTALS ... -2916 C012 465-3811
CHRISTY'S
TRUCK &
TRAILER ... -2916 C012 462-1554
RYDER TRUCK
RENTAL
INC ... -2916 C012 466-1223
2420 DELTA
TRANSMISSIONS
... -2917 C012 462-9229
2423 LEER TRUCK
ACCESSORY
CTR ... -2916 C012 463-8111
2435 Aguayo Debra ... -2916 C012 467-0569
Gutierrez Jose G ... -2916 C012 463-9366
Soto Blanca A ... -2916 C012 942-4655
2442 BURTON'S
CYCLE SHOP ... -2917 C012 948-5361
2455 HANK & TONY'S
INC ... -2916 C012 465-3463
2458 VALLEY MARINE ... -2917 C012 464-1557
2470 B B AUTO
SALES ... -2917 C012 463-3903
2477 CHINESE
ACUPRESSURE ... -2916 C012 462-5160
2512 WATERLOO
LIQUOR ... -2919 C012 463-4114
2530 MARION'S
TERIYAKI
PLACE ... -2919 C012 465-9306
2537 E-Z FOOD
STORE ... -2918 C012 463-5435
2571 NEW
BEGINNINGS
DELIVERANCE
CTR ... -2920 C012 944-9328
2605 BESOTES
BROTHERS
SPEEDBOATS ... -2920 C012 465-5704
2615 CRAIG'S COINS
& CHECKS ... -2920 C012 465-5061
WESTERN
UNION ... -2920 C012 465-0725
2616 WATERLOO
LAUNDERLAND ... -2921 C012 943-7505
2620 LA LUPITA
MARKET ... -2921 C012 465-4656
TREASURE
CHEST
THRIFT ... -2921 C012 462-6117
2629 EL REY MOBILE
HOME PARK ... -2943 C012 463-4413
Brooks Ed ... -2943 C012 465-9458
Mayberry Homer ... -2943 C012 463-1342
Smith Steven L ... -2943 C012 546-0843
2656 HOLLYWOOD
PREMIER VIDEO ... -2921 C012 948-5211
2658 GRAY GOOSE
COCKTAIL
LOUNGE ... -2921 C012 462-9646
2700 PEIRANO'S
AUTOMOTIVE
SVC ... -2923 C012 466-0641
2725 JOE LENTS CO ... -2920 C012 466-5013
2735 THRIFT CENTER
THRIFT STORE ... -2922 C012 465-7765
UNITED
CEREBRAL
PALSY
ASSN ... -2922 C012 465-5963
2740 SEASONS ... -2958 C012 462-3431
2752 Roche Don ... -2958 C012 464-0718
2760 SUNSET AUTO
BODY ... -2958 C012 464-5167
2892 HI LO CLUB ... -2927 C012 463-5347
Brown Louise M ... -2927 C012 546-7790
2907 CENTRO-MART
INC ... -2926 C012 465-1967
3012 ADVANCED
TUNE UP ... -2942 C025 464-6246
3030 EL AMIGO TIRE
SHOP ... -2942 C025 464-4834
3032 U-HAUL CO ... -2959 C025 942-4345
WATERLOO
FOOD &
FUEL ... -2959 C025 466-5816
3039 WATERLOO
FAMILY
MEDICAL
CLINIC ... -2941 C025 465-3457

WATERLOO RD cont'd

Address Zip+4 CarrRte Phone
3065 CALIFORNIA
THRIFT ... -2941 C025 939-9069
3069 LARRY'S
PRESTO
GRAPHICS ... -2941 C025 467-0401
3202 POST TOOL ... -2945 C025 937-0510
3219 MARSHELLI
BEAUTY SALON ... -2944 C025 465-7520
3245 Ross Bill ... -2944 C025 943-1799
Ross William E ... -2944 C025 943-1799
3300 NELLA OIL
CARD LOCK ... -2946 C025 462-3107
BUSINESSES 97 HOUSEHOLDS 11

E WATERLOO RD (S) 95215

3950 DENNY'S ... -2303 C013 931-1622
4100 MOTEL 6 ... -2303 C013 931-9511
4219 BEST WESTERN
INN ... -2304 C013 931-3131
SUTTER
STREET
BAR &
GRILL ... -2304 C013 931-3236
4300 BROOKS
RANCH ... -2334 C013 931-5611
4315 WATERLOO
SHELL FOOD
MART ... -2305 C013 931-3674
4327 TACO BELL ... -2305 C013 931-5815
4400 WATERLOO
CHEVRON ... -2306 C013 931-2186
4407 ERNIE'S
GENERAL
STORE INC ... -2307 C013 931-2850
4410 SUBWAY
SANDWICHES &
SALADS ... -2306 C013 931-9557
4419 MC DONALDS ... -2307 C013 931-2619
4514 Budselich F G ... -2308 C013 931-0586
4600 G & J ALLEN
ELECTRIC INC ... -2311 C013 931-6891
4632 DELTA
SPECIALTY
CONTRACTOR ... -2309 C013 931-3061
DOUBLE D
TRUCKING ... -2309 C013 931-3422
ORNAMENTAL
IRON
WORKS ... -2309 C013 931-4534
PACIFIC
WOODWORK
... -2309 C013 931-1408
PIONEER
PALLET ... -2309 C013 931-5129
4634 NATIONAL
CONCRETE
CUTTING ... -2309 C013 931-6905
4636 PRECISION
PAINTING CO ... -2309 C013 957-3134
4638 SWEET'S
NOSTALGIC
TINWARE ... -2309 C013 931-9410
4642 GRAPETTES ... -2309 C013 931-9138
LAMBERT
DENTAL
INSTRUMENT
... -2309 C013 931-6207
4644 ATSEN
STUDIOS
PRODUCTIONS ... -2309 C013 931-6883
4646 MPI LABEL
SYSTEMS INC ... -2309 C013 931-9100
4727 WATERLOO
FITNESS ... -2327 C013 931-9628
4795 WATERLOO
CHIROPRACTIC
CTR ... -2327 C013 931-2882
4800 TRIPLE S
TRUCK &
TRAILER ... -2310 C013 931-0751
4907 COZAD
TRAILERS
SALES INC ... -2034 C013 931-3093
4932 Francisco Andres ... -2025 C013 931-3395
4945 F & H
CONSTRUCTION ... -2034 C013 931-3738
4969 KELLEY
TRUCKING ... -2034 C013 931-3035
4993 Kelley Charles J ... -2034 C013 931-2298
5030 Pizzi Enrico ... -2046 C013 931-2242
5248 Giannecchini
Oliver ... -2042 C013 931-2277
Giannecchini
Robert ... -2042 C013 931-2277
5403 Barsi Alan L ... -2043 C013 931-4657
5477 RLC FARMS ... -2043 C013 931-1168
5600 JOE POGGIO
RANCH ... -1029 C013 931-1407
5607 Chelotti Harry ... -1012 C013 931-0484
5611 ORLANDO'S
BAIT & TACKLE ... -1012 C013 931-2942
5665 Maragliano Fred
Jr ... -1012 C013 931-5618
5749 Vosburg James
S ... -1024 C013 931-5116
5948 Maragliano Tony ... -1026 C013 931-2927
6233 MARAGLIANO'S
INN ... -9101 R003 931-5144
6250 PROFESSIONAL
TRACTOR
REPAIR ... -9101 R003 931-6695
6472 Vieira Maurice G
Jr ... -9180 R003 931-0199
6508 Vieira Maurice G ... -9102 R003 931-3076
6553 Medina Frank J ... -9102 R003 931-3523
6732 BRENDA'S
BEAUTY SALON ... -9104 R003 931-6978
THREE PALMS
GROCERY ... -9104 R003 931-6048
6767 Blackwell L M ... -9104 R003 931-0054
6848 Turbetti Ed ... -9183 R003 931-4867
6893 Paoletti Ray ... -9183 R003 931-0636
6893 Peccole Pete ... -9183 R003 931-0779
7044 Campodonico
Andy ... -9106 R003 931-1545
7148 Delucchi Emil ... -9106 R003 931-1827
7182 Lagomarsino A
M ... -9106 R003 931-1377
7250 Balero Tomas C ... -9106 R003 931-6442
7337 Kennedy J ... -9106 R003 931-1047
7418 Howell Richard A ... -9184 R003 931-4205
7430 Howell Melvin L ... -9184 R003 931-3635
7444 Howell Hazel ... -9184 R003 931-9670
Howell Nick ... -9184 R003 931-9670
Howell Nick W ... -9184 R003 931-9810
8600 Louie Gary ... -9110 R003 931-2579
8767 Lucchetti I F ... -9110 R003 931-1196
9028 Sunday F E Jr ... -9110 R003 931-3881

Details For:	Year	Source	TP	Adjoining
W WASHINGTON ST	1996	R. L. Polk Co., Publishers	-	X

Manufacturers of Zephyr and Flexalum Aluminum
Awnings and Patios—Plantation Shutters—Window Shades
Screened Patio Enclosures
1120 W. FREEMONT STREET, STOCKTON PHONE 466-5467

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Bank of Stockton Over 100 Years of Progress & Service
MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION
CARSON OAKS BRANCH: Pacific Avenue at Benjamin Holt Drive Phone 478-6066
RENDERING A COMPLETE BANKING SERVICE
MAIN OFFICE: Miner Avenue and San Joaquin Street
BRANCH OFFICE: Main Street and San Joaquin Street – Phone 464-8781

E MYRTLE ST—Contd
D ST INTERSECTS
2202 Flemons Jimmie 466-0201
2203 Segura John ◎ 464-0267
2211 Celestine Charmigne
2212 Covarruvias Angie Mrs ◎
2219 Busby Ozie ◎ 462-3541
2220 Allen Thelma J Mrs
2225 Rice Bertram
2229 Gonzales Jess R 465-6706
2233 Villanueva Merced B ◎ 463-7410
2234 Easter Eddie Mrs
2238 Hernandez Lupe Mrs
2243 Becerra Stanley
2244 Neal Robt E ◎ 464-2660
2249 Meraz Martin 465-6762
2252 Jackson Wm L ◎ 465-4098
2257 Becacca Stanley
2260 Washington Thelma Mrs 466-7242
2266 No Return
2268 Harris Russell H 463-4377
2274 Mc Neal Richd 464-6928
2276 Sullin Viola Mrs 466-8322
2279 Vidaure Rudy ◎ 948-3050
2281 Davis Nathl ◎ 465-1186
2284 Hudson Clyd Rev ◎ 462-6814
2285 Counts Virgil B 462-6136
2292 Porraz John ◎ 462-5755
2293 Perez Haciendo D ◎ 464-4405
NORTH E ST INTERSECTS
2304 Castillano Fred B ◎ 465-3676
2310 Proctor Del Mrs ◎ 462-2060
2311 Chatman James C ◎
2320 Tipton Leroy ◎ 464-8158
2323 Garcia Guadalupe ◎ 465-6969
2328 Varot Ralph H ◎ 465-2949
2331 Castillano Fred B
2338 Romero Trinidad M Mrs ◎ 463-3286
2339 Johnson Spencer ◎ 463-3224
2345 Fountin Othel ◎ 465-1785
2348 Payton Geo ◎ 463-5066
2356 Martinez Roberta Mrs ◎ 462-6418
2357 Gonzalez Victor ◎ 463-3784
2362 Hailey Bob G
2367 Martin Oris ◎ 463-5436
2368 Johnson Wilbert L
2369 Floyd Lillie 462-2693
2371 Mitchell Roberta 465-1179
2376 Diaz Jesus
2392 Flores Jessie ◎ 462-8465
NORTH F ST INTERSECTS
2402 Lane James L 464-9701
Rear White James
2411 Morales Juan P ◎ 462-1794
2419 Smith Bulber ◎ 464-9316
2421 Ontiveros Joseph H ◎ 464-6381
2423 Gross Andrew ◎ 463-0007
2426 Smith Robt ◎ 465-8711
2435 Rey Raymond ◎ 462-5138
2436 Noriega Sally Mrs 948-0851
2443 Hempstead Bruce ◎ 465-0454
2444 Palacio Cesario P ◎ 463-9666
2452 Arteago Nat 462-3260
2455 Little Carter ◎ 463-5983
2460 Padilla Tony P Jr ◎ 463-6477
2464 Puisis Walter 464-0518
2479 Dixon Rose Mrs 465-2944
2480 Smith James E ◎ 463-1721
2487 Hempstead Gentry ◎ 462-7757
2490 Posada Primo ◎ 466-1640
2495 Jones Rufus ◎ 464-2870
2496 True Light Apostolic Faith Church 462-9627

96

N FILBERT ST INTERSECTS
2825 Kleinfelder J H & Associates consulting civ eng 466-2932
2841 Laborers International Union Of North America
Moore T Plastering Co 464-9431

25

NAVAL ANNEX RD —FROM 2700 W WASHINGTON ST WEST

ZIP CODE 95203
3000 U S Army Reserv Training Center 466-6031
U S M C Reserve Training Center 466-6031
U S N Stockton Group 466-6031
U S N Sup Center-Disposal Branch 466-6031
3505 Mobil Oil Co distr terminal 466-9765
3605 Shell Oil Co bulk plant 466-6941

21

NAVY DR —FROM 637 W CHARTER WAY WEST

CANAL DR INTERSECTS
781 Delta Lines trucking 466-8635
Sea-Land Of California Inc forwarding agts 948-2984
ARGONAUT ST INTERSECTS
1002 Stockton Petroleum 464-1142
1202 Marcus Juan R
1214 Guzman Ignacio ◎ 464-2837
1240 Stockton Scavengers Assn Inc garbage colln 463-1406
1312 Fanucchi Roy

19

PERSHING AV INTERSECTS
1441 Apartments
6a Vacant
6b Jenkins Larry
6c Tobin Dennis
6d Vacant
6e Rose Wayne
6f Vacant
6g Mendoza Roy
6h Vacant
6i De Lao Ricardo
6j Serna Julia
6k Vacant
6l Carlton Lloyd
1621 Valley Honey Assn 464-3420
1624 Ringsby System truck lines 466-4053
1627 Reliance Cold Storage Co whse 462-3750
1630 Hormel Geo A & Co food mfrs 465-0597
2005 Hayes A W Trucking Inc 948-0582
2345 Debco Auto Wrecking auto parts 466-0997
2403 Peterson Mfg Co Inc tallow mfr 462-5818
2500 City Water Control Plant
3002 Southern Pacific Pipe Lines Inc stockton terminal 465-7369
3003 Signal Oil & Gas Co petroleum products
3005 Delta Stations Inc petroleum distr 463-4925
3025 Sunland Refining Corp petroleum distr 462-8707

46

NETHERTON AV —FROM 3400 MARSH ST SOUTH

ZIP CODE 95205
416 Vacant
432 Liggins James ◎ 465-6060
437 Archibeque Macario 466-7503
445 Ramirez Manuel G ◎ 465-4498
448 Alexander Herbert ◎
506 Costilla Simon 948-0385
507 Cortez Fructuoso 465-6131
507½ Plante Joseph 948-9019
508 Rimes Luie 465-0937
518 Cogorno Jimmie J ◎ 463-8931
519 Trujillo Roy ◎ 466-7372
531 Goforth Bobby L ◎ 466-2795
532 Rodrigues Dolores V ◎ 464-8187
603 Haines Bill ◎ 464-6951
604 Meintasis Ishmael ◎
615 Cedergren Frank C ◎ 466-8179
627 Daniels Cassie Mrs ◎ 463-3668
HORNER AV INTERSECTS
701 Moran Manuel ◎ 464-1938
704 Moran Mary Mrs
710 Gianelli C ◎
717 Zilkan Harry
724 Horton Albert ◎ 465-1818
738 Tower Bill
748 Rack Alice Mrs 466-9315
752 Tewsbury Thos N 465-9575
762 Laton Ted J ◎

50

E MAIN ST INTERSECTS
836 Torres Andrew
E ANDERSON ST INTERSECTS
907 Presley Franklin W ◎ 464-0479
Rear Jiron Joe E
924 Whitescarver Walter L 464-0287
925 Mc Bride Clara Mrs ◎ 462-4420
926 Starr John G ◎ 465-0511
928 Murrell Charles H ◎ 464-9258
Rear Murrell John P ◎ 463-6451
944 La Prath Jack L
945 Kay Jerry D ◎ 463-4215
946 Cutter Jim
954 Vacant
1004 Silva Geo 463-3839
1005 Morin Arturo ◎ 464-9754
1010 Shotwell Lester R 463-6523
1017 Hope Oscar ◎ 465-4793
1025 Fuerte Tony 465-9324
Montes Virginia Mrs
1030 Vacant
ELEANOR AV INTERSECTS
1120 Snow Alf
1132 Farnsworth Chester W ◎ 462-5051
1133 Burns Oliver
1136 Garcia Robt J
1138 California Fire Extinguisher 464-8107
Oswalt Andrew 464-8107
1145 Boldick Elsie M ◎ 462-2486
1169 Smith James ◎

34

ZIP CODE 95206
FARMINGTON RD INTERSECTS
2136 Lozano Robt S ◎ 464-5939
2144 Sbragia Dina Mrs ◎ 464-6754
2152 Bisbee Geo F ◎ 465-6554
Bisbee Roger
2207 Miles L 464-4034
2215 Butler Roy T ◎ 462-1510
2219 Permann Jim 948-0932
2220 California Water Service Co (Pumping Sta)
2223 Denney Wm J ◎ 466-7309
2239 Priest Kenneth E ◎ 463-5032
2247 Sartain Asa 463-6701
2259 Walters Arvel H ◎ 465-0106

100

NEWPORT AV —FROM 2600 E HARDING WAY NORTH

ZIP CODE 95205
1300 Oxford Burtie 462-8588
1305 Cline Lyle J 463-8839
1311 Nix Le Roy D
1312 Miles Carrie Mrs 465-7346
1320 No Return
1321 Kamp John R 465-7286
1331 Smith James W ◎
1340 Treebs Ralph C ◎
1342 Strohschein James F 465-5266
1368 Chase Wayne F
HARDING WAY INTERSECTS
1403 Dennis James H
1405 Woodruff Lou B Mrs 463-3480
1413 Lopez Geo ◎ 464-7855
1422 Vacant
1430 Fitzpatrick David

E WASHINGTON ST—Contd
5201 Shaeffer's Market gro 462-9068
5217 Hamilton Paul
5218 Rotan Lon F
5227 Hickman Grace Mrs
5228 Bailey Luther C ◎
5235 Bynum Ida ◎ 464-6261
5238 Wood Clarence C ◎ 463-7878
5248 Wood John A
5255 Greenlee Ellen Mrs ◎ 463-3614
5257 Soria Larry E
5258 Vacant ◎
5263 Vacant
5265 Williams Bernard F ◎
5268 Wright Wm E ◎ 465-5350
5276 Hoak Thos M ◎ 462-6505
5303 Avila Ella Mrs ◎ 465-7892
5304 Brown Leslie R ◎ 462-2204
5313 Wood L C
5314 Cornwell Woodrow P 464-7520
5323 Wages Claude ◎ 466-8853
5333 Claude's Service gas sta 466-8853
MAY AV INTERSECTS
5336 Chaudoin Rufus ◎
5344 Tulleners Georgie Mrs ◎ 465-4839
5352 Waddill John W 948-3202
5353 White Haskell P
5361 Davenport Wm L ◎ 463-7752
5362 Childs Juanita Mrs
CARDINAL AV INTERSECTS
5400 Community Market 462-9170
Saleh Moussed ◎
5411 Stanhope Mamie
5419 Schweser Ruth ◎ 463-6340
5424 Knight Gary D
5427 Vacant
5434 Vacant
5435 Riolo Fred S ◎
5444 Barton Raymond M ◎ 463-8457
5447 Lumley Robt ◎ 462-2180
5454 Patterson Richard E ◎ 464-0586
5501 Oller Edna B Mrs ◎ 465-7340
5504 Banes Ray E ◎ 462-1300
5511 Smalley Loretta ◎ 464-0406
5514 Ervin Juanita Mrs
5221 Redfern Homer W ◎ 465-4162
5524 Wood David H
Rear Collins Froni Mrs
5531 Sauceda Ray ◎
5541 Sorling Harvey D Rev
5544 Smith Troy L ◎ 464-9977
5546 Brake Charles W ◎ 466-7673
5553 Owens Jack ◎ 466-0400
Rear Owens Jerry H
5603 Casey Edw 465-7166
5614 Keaster Jess ◎ 463-5760
5625 Horn Roy ◎
5634 Taylor Judith Mrs
5635 Clayton James W ◎ 466-8482
5644 Lavecchio Ronald ◎ 465-9537
5645 Dunning Dixie R ◎ 463-7926
5654 Lovecchio Richd ◎ 463-3925
5655 Walters Leonard ◎ 465-1183
5674 Clapper Neal

901
WASHINGTON ST WEST —FROM 210 S CENTER ST WEST

ZIP CODE 95202
S COMMERCE INTERSECTS
ZIP CODE 95203
S MADISON INTERSECTS

3

S MONROE ST INTERSECTS
S VAN BUREN ST INTERSECTS
S LINCOLN ST INTERSECTS
S HARRISON ST INTERSECTS
S EDISON ST INTERSECTS

17

MC DOUGALD CANAL CROSSES
S STOCKTON ST INTERSECTS
S YOSMITE ST INTERSECTS
S SAN JOSE ST INTERSECTS
S ARGONAUT ST INTERSECTS
S ORANGE ST INTERSECTS
1202 Mathews Suzie Mrs ◎
GARFIELD ST INTERSECTS
S PERSHING AV INTERSECTS
S MADERA AV INTERSECTS
1605 No Return
1609 Vacant
1631 Belluomini Primo ◎ 465-2344
1637 De Santiago Cruz 948-1235
1650 Vacant
FRESNO AV INTERSECTS
1701 City Fire Dept Sta No 1 463-6707
1736 Vacant
1756 No Return
1758 Perez Trinidad Mrs
1760 Valencia Frank X 466-4686
1780 Vacant
S LOS ANGELES AV INTERSECTS
1801 Pappadakis John ◎ 462-8210
1814 Vacant
1815 Morris Anthony ◎ 465-2283
1822 Miller Beverly Mrs
1828 Oliver Audrey Mrs ◎ 464-8927
1834 Saffold Gertrude Mrs ◎ 464-6605
1848 Hodge Wm ◎ 643-8197
1855 Harper Minnie L Mrs ◎ 464-3649
Rear Hernandez Consuelo Mrs 464-9327
1857 Rowe Sarah Mrs 948-9189
1858 Collins Marian L Mrs ◎ 465-9749
1870 Butler Canda
1875 Logan Walter ◎ 463-9955
1880 Ford Shelton ◎ 464-0904
1888 Moore John
1889 Orona Manuel
1893 Cervantes Isabel ◎
S DEL NORTE AV INTERSECTS
1903 Sabatini Leo R 463-3894
1905 Canada Bros ditching contrs 462-2591
2005 Vacant
2040 California Farm Supply Co agrl implements 464-2405
San Joaquin County Farm Supply Co farm sup 465-4141

25

S P CO TRACKS CROSS
NAVAL ANNEX RD INTERSECTS
2100 P-M-S Of California Inc liquid supplement 464-3206
2115 Pacific Molasses Co whol 464-7329
2201 Port Of Stockton Administration Bldg 466-6011
California Molasses Co distr 466-5117
Stockton Port District piers docks & wharves 466-6011
2303 Northern California Grain Exchange 466-4934
2305 Commercial Exchange Club cocktail lounge 466-0184
2321 Skol Building
B Winter R W Co onion & potato brokers 466-7019
C Olympius Golden Jacobs & Hayes Inc adv agcy 464-7736
C Pacific Transit Advertising 464-2252
C Skol Ltd real est 464-7736
D Federal State Market News 466-5785
F Valpey Charles T grain dlr
H Penney J C Co (Whse)
J State Dept Of Agrl Canning Tomato Insp 465-4345
K State Dept Of Agrl (Ship Point Inspection) 462-3749
L State Field Crops & Inspection Serv 446-0441
STREET CONTINUED
2325 Associated Banning stevedore co's 466-1432
Jones Stevedoring Co 466-1432
Stockton Stevedoring Co 466-1432
2400a Robertson H H Co steel fabricators 464-4541
2400b Cal-Wool Marketing Assn 466-6866
2500 Aquatic Research Institute ocean research 466-5324
2700 Atlantic Richfield Oil Co 466-4407
2825 Applegate Drayage 948-2761
Sierra Cement 948-0529
STOCKTON BELT R R TRACKS CROSSES
3000 P G & E (Sub Sta)
U S Naval Communications Sta
3040 City Police Dept (Training Center) 464-2742
3043 Thornton Joseph E 465-5552
STORK RD INTERSECTS

80
WATERLOO RD —FROM 900 N WILSON WAY NORTHEAST

ZIP CODD 95205
900 Lee Fredk T dentist 463-5431
902 Green Frog Market 463-6104
937 Ferrero Electric Corp 465-5929
SCHOOL AV INTERSECTS
939 Triangel Inn tavern 463-0628
Gondola Room restr 463-0628
940 Vacant
944 Risso's Restaurant 466-0016
Risso's Cocktail Lounge 466-0016
982 No Return
PLEASANT ST INTERSECTS
1002 Gordon's Club tavern 463-9274
1020 Waterloo Produce 948-1831
1025 John Ray Co roofing & dry wall 466-3561
1048 Hartwell's Motors used cars 465-1711
1064 House Of Murphy restr 464-4445
House Of Murphy Lounge tavern 463-9185

82

ROOSEVELT ST INTERSECTS
1104 Quali-Quik Cleaners clo 463-5055
Washing Well The self serv lndry
1105 Empire Glass Co 466-0414
1108 Lucky Milk & Ice Cream Co 463-8744
1111 Webb Gerald E ◎ 463-1449
1117 Maragliano Fred Jr 464-7386
1120 Madison Dolly Cake Thrift Store 464-9340
1125 Marlow Geo D 462-0711
1130 Appliance Center 466-4721
1132 Happell's Pharmacies 466-2522
1133 Laurence Myrl 465-6722
1135 Hickman Henry W 464-0364
1140 Rasco's Bigg & Littel genl mdse 466-9711
U S P O (Sub Sta No 3) 466-9711
1156 Douglas Service Station 465-9776
SYCAMORE AV INTERSECTS
1221 Peirano Frank L ◎ 463-0907
1225 Mengell Edw ◎ 463-8366
1241 Saint John Darlene Mrs
1243 Blaine Grace 464-6667
1243½ Joiner Evelyn
1249 Charley's Used Furniture 462-4039
1253 Alwood Geo B 462-0978
1255 Patton James 467-8123
HIAWATHA AV INTERSECTS
1275 Santarosa Caterina Mrs 464-2079
E HARDING WY INTERSECTS
1305 A-1 Exterminators 463-0282
1400 Tillie Lewis Foods Inc (Wilson Plant Ofc) 464-0401
1530 L & B Liquors 462-3506
1533 Surplus Steel & Pipe Co 466-0607
1536 Save-Mart gro 466-5011

92

SANGUINETTI LA INTERSECTS
2116 County Eastside Rural Fire Protection Dist 466-0160
WILLIAMS ST INTERSECTS
2201 Vacant
2204 No Return
2205 Peirano's Cafe 462-4138

Details For:	Year	Source	TP	Adjoining
W WASHINGTON ST	1970	R. L. Polk Co., Publishers	-	X

E MYRTLE ST—Contd
1945 Vacant
1960 Reynosa Manuel J ◎ 464-2031
SOUTH B ST INTERSECTS
2006 Vacant
2011 Aziz Abdul ◎ 462-3741
2018 Rickmon Lawrence J ◎ 462-0991
2019 Suhr Alta A Mrs ◎ 465-1328
Rear★Yettner Robt
2021 Vacant
2026 Ame Ciriaco B ◎ 465-6312
2035 Rodriguez Catarino A ◎ 948-2327
2040 No Return
2041★Lopez Santos ◎ 466-7351
2044 Ray Mary J ◎
2049 Perez Ignacio 948-3034
2050 Gonzalez Jose M ◎ 466-0535
2051 No Return
2053 No Return
2060 Gomez Craig
2068★Perez Arth 464-0431
2074 Cervantes Max ◎ 465-0036
2075 Frazier Arth L ◎ 464-0745
2082 Rodriguez Jesse ◎ 465-6927
2083 Holman Florence G Mrs ◎ 464-7169
2096 Phillips Archie ◎ 464-1735
SOUTH C ST INTERSECTS
2103 Delatory Rosalino 462-7313
2104 Folsom Willis B ◎ 465-1219
2111 Alvarez Frank ◎
2112 Hicks Henry J ◎ 463-2669
2119 Maldonado Liborio ◎ 465-9597
2120 Noble Osmond ◎ 464-3094
2125 Gonzalez Luz ◎ 462-3850
2134 Austin Walter L ◎ 462-3036
2139 Perez Joe O ◎ 463-6873
2144 Wilson Valerie 465-6591
2145 Sarraraz Carol Mrs ◎ 464-7380
2151 Mc Gehee Adrita ◎ 465-0782
2152 Williams Richd Jr ◎ 465-3590
2158 No Return
2163 Rojas Louis 462-5208
2165 Delarm Mc Kinley ◎ 462-5451
2174 Garcia Frank H ◎ 464-1640
2175 No Return
2179 Bute Gabriel J ◎ 465-7917
2184 No Return
2186 Ramos Robt J ◎
2191 Fincher Rose M Mrs
NORTH D ST INTERSECTS
2202 Jimenez Pedro ◎ 465-4926
2203 Sequra John M ◎
2211 Martinez Wm 462-8923
2212★Casillas Henry ◎ 462-1829
2219 No Return
2220 No Return
2225 Vacant
2233 Villanueva Merced B ◎ 463-3068
2234 Maestes Jose E ◎ 465-7175
2238 No Return
2243 Vacant
2252 Jackson Wm L ◎ 465-4098
2257 Guerrero Maria M 463-9708
2260 Ontiveros Joe A ◎ 948-8823
2266 No Return
2268 James Mary Mrs
2274 Vacant
2279 Vidaure Rudy ◎ 948-3050
2281 Davis Nathl ◎ 465-1186
2284 Hudson Clyde Rev ◎ 462-6814
2285 Counts Virgil B 462-6136
2292 Porraz John ◎ 462-3760
2293 Chavez Bernabe ◎
SOUTH E ST INTERSECTS
2304 Rafael Melvin ◎ 948-1337
2310 Proctor Del Mrs ◎ 462-8815
2311 Chatman James C ◎ 464-5604
2320 Tipton Leroy ◎ 464-8158
2323 Garcia Guadalupe ◎ 465-6969
2328 Varot Ralph H ◎
2338 Romero Trinidad M Mrs ◎ 463-3286
2339 Johnson Spencer ◎ 948-3224
2345 Fountin Othel ◎ 465-1785
2348 Payton Geo A ◎ 463-5066
2356 Martinez Ignacio 462-6418
2357 Gonzalez Victor C ◎ 463-3784
2362 Gremillion Angela 463-3490
2367 Martin Oris ◎ 463-5436
2368 Love Jean 462-2163
2369 Floyd Lillie 462-2693
2371 Kelley Annie L Mrs 464-8896
2376 Diaz Jesse R ◎ 948-4359
2382★Barton James R ◎ 948-2371
2392 Flores Jessie ◎ 462-8465
NORTH F ST INTERSECTS
2411 Morales Juan P ◎ 462-1794
2419 Smith Bulber ◎ 464-9316
2420 Ontiveros Joseph H ◎ 464-6381
2423 Gross Andrew ◎ 463-0007
2435 Rey Raymond ◎ 462-5138
2436 Quintana Gilbert 462-4583
2443 Hempstead Bruce ◎
2444 Palacio Cesario P ◎ 463-9666
2452 Arteago Nat ◎ 462-3260
2460 Padilla Tony P Jr ◎ 463-6477
2463 Herrera Rosie 948-4315
2464 Puisis Walter ◎ 462-6886
2479 Dixon Rose Mrs
2487 Hempstead Gentry ◎ 462-7757
2490 Posada Primo ◎ 465-8538
2495 Jones Rufus ◎ 464-2870

96

N FILBERT ST INTERSECTS
2731 Sardee Corp Of Calif 466-1526
2825 Kleinfelder J H & Associates consulting civ eng 466-2932
2841 Laborers International Union Of North America 466-3356
3023 Froeliger Machine Tool Co 948-2888

25

NAVAL ANNEX RD —FROM 2700 W WASHINGTON ST WEST

ZIP CODE 95203
3000 U S Army Reserve Training Center 466-6031
U S M C Reserve Training Center 466-6031
U S N Stockton Group 466-6031
U S N Sup Center-Disposal Branch 466-6031
3505 Mobil Oil Co distr terminal 466-6832
3605 Shell Oil Co bulk plant & distr term 466-6941

21

NAVY DR —FROM 637 W CHARTER WAY WEST

ZIP CODE 95206
CANAL DR INTERSECTS
781 Delta Lines trucking 466-8635
Sea-Land Of California Inc forwarding agts 948-2984
825 Interstate International Inc truck dlrs 466-4136
ARGONAUT ST INTERSECTS
1004 Holt Brothers Lift Truck Division 464-7384
1240 Stockton Scavengers (Garage) 464-7357
1312 Fanucchi Roy

19

PERSHING AV INTERSECTS
1441 Apartments
6a Vigil Jimmy
6b Rodriguez Efrin
6c Cox John
6d Soccoro
6e Slade Thelma
6f Stedman Ed
6g Harris Laura
6h Dalviar Lucy
6i Donaldson Kenneth O
6j Dunlap Jackie
6k Vacant
6l Ekels Cynthia
1621 Valley Honey Assn 464-4756
1624 Eagle Truck Lines Inc 466-8648
1627 Reliance Cold Storage Warehouse Co 462-3750
1630 Hormel Geo A & Co food mfrs 465-0597
1903 D & V Machine Shop 462-4803
1905 Blue Chip Products Inc tallow rendering 466-3463
2005 Hays A W Trucking Inc 948-0582
2041 Lika Corp printed circuit boards mfr 466-5195
2345 Debco Auto Wrecking auto parts 466-0997
2403 Peterson Manufacturing Co Inc tallow mfr 462-5818
2500 Regional Waste Water Control Facility
2711 Learner Co scrap metal dlr 466-2358
2941 Lobo Brands Trucking Co 464-9808
Standard Transmission Terminal 464-9808
2947 Southern Pacific Pipe Lines Inc stockton terminal 465-7369
3003 Burmah Oil & Gas Co (Bulk Terminal)
3005 Delta Stations Inc petroleum distr 463-4925
3025 Sunland Refining Corp petroleum distr 462-8707

46

NETHERTON AV —FROM 3400 MARSH ST SOUTH

ZIP CODE 95205
416 Hunt Jessie Mrs ◎ 464-7888
432 Liggins James ◎ 465-6060
437 Archibeque Macario ◎ 466-7503
445 Ramirez Manuel G ◎ 465-4498
448 Alexander Herbert ◎
506★Marsellis Bona 464-0080
507★Gevert Jed
507½★Horton Danny
508 Rimes Luie ◎
518 Cogorno Jimmie J ◎ 463-8931
519 Trujillo Mae Mrs ◎ 466-7372
531 Goforth Bobby L ◎ 466-2795
532 Rodrigues J D ◎ 464-8187
603 Brown W G ◎
604 Meintasis Ishmael ◎ 465-4936
615★Lujan Robt 463-3391
627★Ayala Gabriel ◎ 948-5295
HORNER AV INTERSECTS
701 Moran Manuel ◎ 464-1938
704 No Return
710 Gianelli Cornella Mrs ◎
717 No Return
724 Horton Albert ◎ 465-1818
738★Fieldon Robt
748★Rac J A ◎
752 No Return
762 Laton Ted J ◎

50

E MAIN ST INTERSECTS
836 Torres Margt Mrs
E ANDERSON ST INTERSECTS
907 Presley Franklin W ◎ 464-0479
924 Whitescarver Walter L 464-0287
925 Mc Bride Clara Mrs ◎
926 Starr John G ◎ 465-0511
928★May Robt B
Rear★Vozza Smiles B 462-8264
944 La Prath Jack L
945 Ming Kenneth M ◎ 463-4079
946 Tacas Genaro 465-9362
954 No Return
1004 Silva Geo ◎ 463-3903
1005 Marin Arturo B ◎
1010 Shotwell Lester R 463-6523
1017★Martinez Jesus ◎ 466-9447
1025 Vacant
1030★Jones Graig
ELEANOR AV INTERSECTS
1120 Snow Alf

Details For:	Year	Source	TP	Adjoining
NAVY DR	1975	R.L. Polk CO.	-	X

E WASHINGTON ST—Contd
5228 Abe Keiichi K ◎ 464-0655
5235 Bynum Ida L Mrs ◎
5238 Wood Clarence C ◎ 463-7878
5248 Wood John A
5255 Greenlee Ellen Mrs ◎ 463-3614
5257★Jorden Dee
5258 Torres Raul R ◎ 463-8041
5263★Martin Danny
5265 Shuffler Minnie Mrs 462-6064
5268★Waters Edna
5276 Choate Paul ◎
5304 Brown Leslie R ◎ 462-2204
5313 Ball John W 463-5348
5314 White Haskell P ◎ 462-1339
MAY AV INTERSECTS
5323 Wages Claude ◎ 465-8089
5333★Harkins Manuel 462-4412
5336 Chaudoin Rufus ◎ 465-6214
5344★Lein Louise
5352 Lumley Robt E 462-2180
5353 Dalton Raymond ◎ 464-0866
5361★Wool Mrytle
5362 Colson Jerry M
CARDINAL AV INTERSECTS
5400 Community Market gro 465-1215
5411 Rieger Theo R
5419 Naji Ismael ◎ 464-7236
5424 Grether Ralph E 465-5423
5427 Brooks Louie G ◎ 465-1304
5434★Washington Jack
5435 Riolo Fred S ◎ 465-1977
5444 Vacant
5447 Lumley Hazel E Mrs ◎ 462-2180
5454 Patterson Richard E ◎
5501 Oller Edna Mrs 465-7340
5504 Banes Ruth Mrs ◎
5511 Smalley Lowell M ◎ 464-0406
5514 Via Pando Danl
5221 Davis Issac ◎ 464-0803
5524 Wood David H 948-3384
Rear Geister Gregory
5531 Altes C A ◎ 948-1150
5534 Baccus Ronald L 948-8411
5541 Roberson Anna L 948-0402
5544 Smith Troy L ◎ 464-9977
5546 Brake Charles W ◎ 466-7673
5553 No Return
Rear Tedrow Michl
5603 Midgley Vernon G ◎
5614 Ray Johnnie
5625 White's Plastering contrs 465-9106
White A H ◎ 465-9106
5634 Coleman Jerry L ◎ 464-8163
5635 Clayton James W ◎ 466-8482
5644 Sorling R A ◎ 464-9196
5645 Dunning Dixie R ◎ 463-7926
5654 Lovecchio Naomi B Mrs ◎
5655 Walters Leonard ◎ 465-1183
5674 Smith Hubert trucker ◎ 466-4465

901
WASHINGTON ST WEST —FROM 210 S CENTER ST WEST

ZIP CODE 95202
S COMMERCE INTERSECTS
ZIP CODE 95203
S MADISON INTERSECTS

3
S MONROE ST INTERSECTS
S VAN BUREN ST INTERSECTS
S LINCOLN ST INTERSECTS
S HARRISON ST INTERSECTS
S EDISON ST INTERSECTS

17
MC DOUGALD CANAL CROSSES
S STOCKTON ST INTERSECTS
S YOSMITE ST INTERSECTS
S SAN JOSE ST INTERSECTS
S ARGONAUT ST INTERSECTS
S ORANGE ST INTERSECTS
1202 Greer Vernon C 466-3567
GARFIELD ST INTERSECTS
1340 California Cedar Products pencil slat mfg 464-9881
Duraflame Inc fire logs mfr 464-9881
Mc Cormick & Baxter Creosoting Co lbr treating 465-5768
S PERSHING AV INTERSECTS
S MADERA AV INTERSECTS
1605 Cooley Junior Funeral Service 948-9750
1609 Vacant
1631 Belluomini Primo ◎ 465-2344
1637 De Santiago Cruz 948-1235
FRESNO AV INTERSECTS
1736 Vacant
1754 Ruiz Sammy H
1756 Leyva James
1780 Sievers Henry
S LOS ANGELES AV INTERSECTS
1801 Vacant
1814 Vacant
1815 Morris Anthony ◎ 465-2283
1822 Miller Beverly Mrs 464-7858
1828 Oliver Audrey Mrs ◎ 464-8927
1834 Saffold Gertrude Mrs ◎ 463-1970
1845 Little Flock Baptist Church 462-3765
1848 Hodge Wm ◎ 643-8197
1855 Harper Minnie L Mrs ◎ 464-3649
Rear See Frank 465-7210
1857 Lopez Frank 948-0124
1858 Collins Marian L Mrs ◎ 465-9749
1870 Butler Conda L
1875 Logan Walter ◎
1880 Ford Shelton ◎ 948-9160
1888 Moore Julia B Mrs ◎ 463-3256
1889 Smith Tom
VENTURA AV INTERSECTS
1903 Vacant
1905 Canada Bros ditching contrs
1949 Vacant
2040 California Farm Supply Co agrl sups 464-2405
San Joaquin County Farm Supply Co 465-4141

25
S P TRACK CROSS
NAVAL ANNEX RD INTERSECTS
2115 Pacific Molasses Co whol 464-7329
2130 P M S West liquid cattle feed 464-3206
2201 Port Of Stockton Administration Bldg 466-6011
California Molasses Co distr 466-5117
Stockton Port District piers docks & wharves 466-6011
2303 Northern California Grain Exchange 466-4934
2305 Commercial Exchange Club cocktail lounge 466-0184
2321 Skol Building
ROOMS
A Overseas Marketing Enterprises importers 463-0662
B Winter R W Co onion & potato brokers 466-7019
C Olympius Organization The adv agcy 464-7736
C Skol Ltd real est 464-7736
D State Market News Serv 466-0881
E United States Border Patrol 466-2671
F Valpey Charles T grain dlr 466-5851
H Vacant
J State Dept Of Agrl (Canning Tomato Insp) 465-4345
K State Dept Of Agrl (Ship Point Inspection) 462-3749
L State Grain & Commodity Inspection 466-0441
STREET CONTINUED
2325 Stockton Stevedore & Warehouse Co 466-1432
2400a Robertson H H Co steel fabricators 464-4541
2400b Cal-Wool Marketing Assn 466-6866
2421 Mc Cormick & Baxter Creosoting Co wood treating 465-5768
2700 Arco 466-4407
2825 Riverside Cement Co distr 948-0529
STOCKTON BELT R R TRACK CROSSES
3000 P G & E (Sub Sta)
U S Naval Communications Sta
3040 City Police Dept (Training Center) 464-2742
3043 Landrum Charles A 462-5404
STORK RD INTERSECTS

80
WATERLOO RD —FROM 900 N WILSON WAY NORTHEAST

ZIP CODD 95205
900 Savio's Bicycle Repairs 466-8133
902 Carpet Corner Inc 464-5707
SCHOOL AV INTERSECTS
940 Koscot Products beauty products 464-5949
944 Risso's Restaurant 466-0016
Risso's Cocktail Lounge 466-0016
982 Vacant
SCHOOL ST INTERSECTS
1002 Gordon's Club tavern 463-9274
1020 Waterloo Produce 948-1831
E ACACIA INTERSECTS
PLEASANT ST INTERSECTS
1048 Satellite Muffler 465-2086
1060 Ratto Pete Realty 477-8009
1064 House Of Murphy restr 464-4445
House Of Murphy Lounge tavern 463-9185

82
ROOSEVELT ST INTERSECTS
1104 Quali-Qwik Cleaners clo 463-5055
Washing Well The
1105 Empire Glass Co 466-0414
1108 Dutch Pride Dairy 465-6195
1111★Rogers Mae 465-4735
1117 Rucker Frank 462-7815
1120 State Human Resources Dev (Unemployment Ins Ofc) 948-7215
1125★Haynes Lena 948-2339
1132 Happell's Prescription Pharmacy 466-2522
1135★Kimrey Edith B 462-3221
1140 Rasco Tempo genl mdse 466-9711
U S Postal Serv (Sub Sta No 3) 466-9711
1156 Vacant
1170 Rasco Tempo Building Supply 464-7647
SYCAMORE AV INTERSECTS
1201 Rasco Tempo Nursery Supplies 465-0063
1221 Peirano Frank L ◎ 463-0907
1241 No Return
1243½ Vacant
1249 Charley's Used Furniture
1253 Moore Rose 465-6736
1255★Carson Ralph A
HIAWATHA AV INTERSECTS
1275 Santarosa Caterina Mrs ◎ 464-2079
E HARDING WY INTERSECTS
1400 Tillie Lewis Foods Inc (Wilson Plant Ofc) 946-4011
1530 L & B Liquors 462-3506
1533 Surplus Steel & Pipe Co 466-0607
1536 Save-Mart N F I Inc gro 466-5011

92
SANGUINETTI LA INTERSECTS
2116 County Eastside Rural Fire Protection Dist No 1 466-0160
WILLIAMS ST INTERSECTS
2204 Vacant
2205 Peirano's Cafe 462-4138
Western Refrigeration & Air Conditioning 464-0427

Details For:	Year	Source	TP	Adjoining
W WASHINGTON ST	1975	R.L. Polk CO.	-	X

NAVAJO DR—Contd
1621 Ellis James R 951-3399
1626★Dixon Michl R 478-0160
1627★Hixon
1632 Halpin John R ◎ 951-8411
1633 Terzo Sam 951-1966
1638★Wood Monty L 951-5524
1639★Michniuk Serge 478-9406
1647 No Return
SHAWNEE CT INTERSECTS
1704★Ortega Benj
1705 Fox E R Jr ◎ 477-3618
1710★Williamson J E ◎ 951-7112
1711 Baca Theo E ◎ 477-6159
1716 Teixeira Manuel ◎ 477-8873
1717 Pugh Kenneth C 478-2715
1722★Kulhanek J M ◎ 478-7223
1723 Vacant

25

NAVAL ANNEX RD —FROM 2700 W WASHINGTON ST WEST

ZIP CODE 95203
3040 City Police Training Facility 466-6031
3505 Mobil Oil Co distr terminal
3605 Shell Oil Co bulk plant & distr term 466-6941

21

NAVY DR —FROM 637 W CHARTER WAY WEST

ZIP CODE 95206
CANAL DR INTERSECTS
781 Vacant
825 Interstate International Inc truck dlrs 466-4136
ARGONAUT ST INTERSECTS
1004 Holt Brothers Lift Truck Division 466-3311
R & R Trucking 948-8287
1111 Safeway Stores Inc (Meat Processing Dept) 948-6440
1240 Stockton Scavengers (Garage)
1312 Fanucchi Roy

19

PERSHING AV INTERSECTS
1440 Apartments
6a Esteban Julie
6b★Stokes Sam
6c Mendoza Jose
6d Castro Virginia
6e Slade Thelma
6f Estevan Consuelo
6g★Martin Hortensia
6h Walker Alfred 943-0723
6i★Walker Stevie
6j★Gomez Esmeralda
6k★Rodriquez Declio
6l★Monsibiaz Petra 463-4100
1621 Valley Honey Assn 464-4756
1624 Delta Pallet 943-0929
1627 Reliance Cold Storage Warehouse Co 462-3750
1630 Hormel Geo A & Co food mfrs 943-5411
1903 D & V Machine Shop & Steel 462-4803
Tractor Plow Co 466-1105
1905 Blue Chip Products Inc tallow rendering 466-3463
2005 Hays A W Trucking Inc 948-0582
2041 Lika Corp Stockton printed circuit boards mfr 948-0944
2059 Nelson Ready Mix Concrete & Rock Co 466-2884
2191 Bokides Petroleum Inc 943-2011
2225 Chappell Roofing Co
2253 Fredrickson Truck Lines
2345 Debco Auto Wrecking auto parts 466-0161
2403 Peterson Manufacturing Co Inc tallow mfr 462-5818
2500 City Of Stockton (Whse) 466-0488
Regional Waste Water Control Facility 464-7339
2711 Learner Co scrap metal dlr 466-2358
2835 Union Oil Co Of Calif 466-6861
2941 Williams Tank Line Inc 462-1227
Standard Transmission (Div Of Cleary) 462-5879
2947 Southern Pacific Pipe Lines Inc stockton terminal 465-7369
3001 Delta Stations Inc 462-2801
3003 Aminoil U S A (Bulk Terminal) 466-8800
3025 Jamar Oil Distributors petroleum distr 462-8707
3043 Landrum Charles A 462-5404

80

NELLIS ST —FROM N WILSON WAY EAST 1 SOUTH OF E POPLAR ST

ZIP CODE 95205

46

NETHERTON AV —FROM 3400 MARSH ST SOUTH

ZIP CODE 95205
416 Hunt Jessie Mrs ◎ 464-7888
432 Liggins James ◎ 465-6060
437 Archibeque Macario ◎ 466-7503
445 Ramirez Manuel G ◎ 465-4498
448 Alexander Herbert ◎
506★Resendes Peter A ◎ 948-5317
507 Groves Louise 463-3029
507½★Russell Judy
508 Rimes Lura ◎
518 Cogorno Jimmie J ◎ 463-8931
519★Trujillo Raul ◎
531 Goforth Bobby L ◎ 466-2795
532 Rodriguez D J ◎ 464-8187
603 Brown W G ◎
604 Meintasis Ishmael ◎ 465-4936
615 Lujan Robt ◎ 463-3391
627 Ayala Gabriel ◎ 948-5295
HORNER AV INTERSECTS
701 Moran Manuel ◎ 464-1938
710 Gianelli Cornella Mrs ◎
717 Moran Manuel Jr 465-8972
724 Horton Albert ◎
738 Garza Arturo ◎
748 Avila Joseph ◎
752 Williams Byron D 465-1909
762 Putman Blanche D

50

E MAIN ST INTERSECTS
836 Torres Margt Mrs
E ANDERSON ST INTERSECTS
907 Presley Franklin W ◎ 464-0479
Samuelson L M 462-0665
924 Whitescarver Walter L 948-4056
925★Kostio Lazo
926 Starr John G ◎ 465-0511
928 May Robt B
944 Wallace R
945★Rillon Ruben ◎
946 Tacas Genaro 465-9362
954★Rimes Linda
1004 Silvey Geo
1005 Marin Arturo B ◎
1010 Shotwell Lester R 463-6523
1017 Martinez Jesus A ◎ 466-9447
1025 Garcia Richd A 462-4047
1030 Hehner Walter R
ELEANOR AV INTERSECTS
1120 Snow Alf
1132 No Return
1133★Morgan Dennis 465-6070
1136★La Ray Josephine
1138 Calsascia Maurice 462-0164
1145 Boldick Elsie M ◎ 462-2486
1169 Brown L
GUERNSEY INTERSECTS

136

ZIP CODE 95206
FARMINGTON RD INTERSECTS
2136 Lozano Vivian G ◎ 465-8110
2144 Knutson D K ◎
2152 Bisbee Geo F ◎ 465-6554
2207 Martin John
2215 Butler Roy T ◎ 462-1510
2219 Holland James 462-8964
2220 California Water Service Co (Pumping Sta)
2223 Denney Wm J ◎ 466-7309
2239 Priest Kenneth E ◎ 463-5032
2247 Alcala Betty J Mrs ◎
2259 Garcia Ralph ◎ 462-3669

207

NEUBOURG CT —FROM NEUBOURG DR WEST TO DEAD END 4 NORTH OF HAMMER LA

ZIP CODE 95207
2601★Smith Durwood Rev ◎ 477-6574
2602★Vu Huy D ◎ 951-9065
2607★Caldwell Camden ◎ 477-9174
2608 Vacant
2619 No Return
2620★Singh Lahamber 951-3529
2625★Zidich John 957-5187
2626 Vacant

207

NEUBOURG DR —FROM PYRENEES AV SOUTH 3 NORTH OF HAMMER LA

ZIP CODE 95207
8304 Vacant
8310★Kline Robt ◎
8209★Labarthe Daryl 957-8023
8311★Aaker Thos ◎ 477-6766
8313★Saint George Michl 478-7469
8316 Vacant
8323★Harmon Jerry D Jr 951-5865
8328 Vacant
8329★Valtierra John ◎
8334 No Return
8338 Vacant
8340★Lopez Jesus 957-5331
8341★Robinson M R 957-5423
8346★Paunon Gaudencio 951-7758
NEUBOURG CT INTERSECTS
8348★Lopez Jesus
8352★Pann H
8357★Russell Ronald
8358 Vacant
8364★Kreiter Richd W 957-7442
NEUBOURG CT INTERSECTS
8369★Trainor Dennis L 478-6772
8370 Vacant

ROBERT J. WISE INC. LIC. NO. 285631

Details For:	Year	Source	TP	Adjoining
NAVY DR	1979	R.L. Polk CO.	-	X

3127420.6 Page: A7

W WASHINGTON ST—Contd
GARFIELD ST INTERSECTS
1340 California Cedar Products pencil slat mfg 944-5800
1341 Mc Cormick & Baxter Creosoting Co lbr treating 465-5769
S PERSHING AV INTERSECTS
S MADERA AV INTERSECTS
1605 Cooley Junior Funeral Service 948-9750
1609 Vacant
1631 Belluomini Primo ◎ 465-2344
1637★Burns Kevin ◎ 463-5406
FRESNO AV INTERSECTS
1701 City Fire Dept engine co 1
1736★Layo Mercy
1754 No Return
1756★Hernandez Paul
1780 Vacant
S LOS ANGELES AV INTERSECTS
1801★Avials Wm 465-5384
1815 Morris Helen Mrs ◎ 465-2283
1822★Coronado Raymond
1828 Oliver Audrey
1834★Abugen C J
1845 Little Flock Baptist Church 462-3765
DEL MONTE INTERSECTS
1848 Hodge Wm ◎ 463-8197
1855 Harper Minnie L Mrs ◎ 464-3649
Rear Vacant
1857 Lopez Frank 948-0124
1858★Williams Lee Rev 463-4941
1870★Celestine Joseph
1875 No Return
1880 Ford Shelton ◎ 948-9160
1888 Moore Julia B Mrs ◎ 463-3256
VENTURA AV INTERSECTS
1903★Smith Don E 464-3404
1905 Stockton Frame & Body car body shop 464-5603
1949★Perez Joe
2005 Duraflame (Whse) 462-1944
2040 Cal Farm Supply Co agrl sups 464-2405
San Joaquin County Farm Supply Co 465-4141

25

S P TRACK CROSS
NAVAL ANNEX RD INTERSECTS
2115 Pacific Molasses Co whol 464-7329
2130 P M S Of California Inc liquid cattle feed 464-3206
2201 Port Of Stockton Administration Bldg 946-0246
Cargill Inc distr molasses 946-0914
Stockton Port District piers docks & wharves 946-0246
J C Penney's (Control Whse) 466-5183
Port Stockton Railroad Yard (Ofc) 462-7952
2303 Northern California Grain Exchange 946-0432
2305 Commercial Exchange Club cocktail lounge 466-0184
2321 Skol Building
ROOMS
A Amerealco Inc food processor 948-9758
B Winter R W Co onion & potato brokers 466-7019
C Occidental Chemical Co 466-0568
D State Of Calif Market News Serv 466-0881
E United States Border Patrol 946-6296
F Valpey Grain Co whol 466-5851
F Valpey Charles T grain dlr 466-5851
J State Dept Of Agrl (Canning Tomato Insp) 465-4345
K State Dept Of Agrl (Ship Point Inspection) 462-3749
L State Grain & Commodity Inspection 466-0441
STREET CONTINUED
2325 Stockton Stevedore & Warehouse Co 466-1432
2400a Robertson H H Co steel fabricators 464-4541
2400b Vacant
2700 Arco 466-5094
2825 Riverside Cement Co distr 948-0529
STOCKTON BELT R R TRACK CROSSES
3000 P G & E (Sub Sta)
U S Naval Communications Sta 466-6031
3040 City Police Dept (Training Center) 464-2742
STORK RD INTERSECTS

80

WATERLOO RD —FROM 900 N WILSON WAY NORTHEAST

ZIP CODD 95205
902 Carpet Corner Inc 464-4676
940 Strong Pat cpa 464-5949
944 Risso's Restaurant 466-0016
Risso's Cocktail Lounge 466-0016
969 Kinney Shoes 946-9564
982 Vacant
SCHOOL ST INTERSECTS
1002 Gordon's Club tavern 946-9005
1020 Waterloo Produce 948-1831
E ACACIA INTERSECTS
PLEASANT ST INTERSECTS
1047 Waterloo Builders & Hardware
1048 Satellite Muffler 465-2086
1060 Ratto Pete Realty 477-8009
1064 Murphy's italian restr
Murphys Lounge cocktail
House Of Murphy The 464-4445

82

ROOSEVELT ST INTERSECTS
1104 Vacant
1104a Washing Well The 946-9241
1105 Empire Glass Co 466-0414
1108 Vacant
1111 Carter Bill 464-0838
1117 Naranous Forrest
1120 State Human Resources Dev (Unemployment Ins Ofc) 948-7215
1125 Haynes Lena 948-2339
1132 Happell's Prescription Pharmacy 466-2522
1135 Kimrey Edith B 462-3221
1140 Rasco Tempo genl mdse 466-9711
U S Postal Serv (Sub Sta No 3) 466-9711
1156 Vacant
SYCAMORE AV INTERSECTS
1201 Whse
1215 Whse
1221 Peirano Frank L ◎ 463-0907
1225★Carigilt E ◎
1241 Vacant (3 Hses 1241-1243½)
1249 Star Sam
1253 Moore Rose Marie 465-6736
1255 Aulgur Dixie
HIAWATHA AV INTERSECTS
1275 Santarosa Caterina ◎ 464-2079
E HARDING WY INTERSECTS
1400 Tillie Lewis Foods Inc (Wilson Plant Ofc) 946-4011
1530 Two Pals Liquors 462-3506
1533 Vacant
1536 Savex Save-Mart No 2 gro 466-5011

92

SANGUINETTI LA INTERSECTS
2116 County Eastside Rural Fire Protection Dist No 1 466-3534
2204 Tilley Claude W
2205 Peirano's Cafe 462-4138
Western Refrigeration & Air Conditioning 464-0427
Peirano's Tavern 462-4138
2206 Bonner Marie A Mrs 465-9210
2208 Saint Clair Wm A
2212★Jenkins Gene E 948-6733
2224 Oriental Acupressure Therapy 465-1377
2232 Precision Auto Repair 463-2997
WILLIAMS ST INTERSECTS
2233 Cope H L Painting Service contr 464-3378
2249 John Ray Co Inc roofing & drywall 466-3561
2252 Vacant
2272 City Tire Service 464-0549
2294 Delta Sheet Metal
2294a Majo Iar Company contrs 948-0741
NORTH E ST INTERSECTS
2303 Vickerman Richd 463-7033
2306 Saculla Anthony ◎ 944-0942
2307 Custom House Plans designers 465-6730
2309 Jasman Larry 465-0854
2310 Windmill Antiques & Used Furniture 944-0942
BELVEDERE AV INTERSECTS
2329 Big Valley Exterminators 466-0364
2332 Nelson Don
2349 A M A Service Center 948-2778
2350 Larry's Beacon Station No 419 462-4569
2355 California Floor Covering carpets & lineoleum 466-4939
SIERRA LA INTERSECTS
2359 Brice's Original Pocket Bread 465-9866
2361 Frank's Kitchen Equipment Repair & Service 464-3355
Central California Sales restr kitchen sales 464-3355
2362 Rice Gifford S
2366 Turner Charles F ◎ 465-2395
2370 Vacant
2377 Home Supply Tool Rental Inc 465-2693
2378 San Joaquin Auto Body & Paint 463-4621
SIERRA LA INTERSECTS
2382 Martin's Auto & Truck Repair 465-0652
2385 Quality Tile Co ceramic tile contr 466-6220
2386 Woodruff Custom Painting 463-6761
NORTH F ST INTERSECTS
2415 Vacant
2416 Hutton's Building Materials
2420 O'Connor's Cleenco Carpet Cleaners 948-1661
2423 Kamper Korner 463-8111
2426 No Return
2428 Vacant
2435 Waterloo Courts apts 465-0617
2 Wheeler Tom D 463-4540
3 Aldama Dionicio 464-1092

STOCKTON SIGN CO

E MYRTLE ST—Contd
2463 Herrera Rosa ◎ 948-6106
2464 Vacant
2479★Garcia Robt 466-5173
2487 Hempstead Gentry ◎ 462-7757
2490 Posada Magdalena Mrs ◎ 466-1772
2495★Gray Kathleen Mrs ◎

96

N FILBERT ST INTERSECTS
2731 Sardee Corp Of Ca mach mfrs 466-1526
2825 Kleinfelder J H & Associates consulting civ eng 948-1345
2841 Laborers International Union Of North America 466-3356
3023 Froeliger Machine Tool Co 948-2888

235

NANTUCKET DR —FROM CHELSEA DR NORTH 1 EAST OF DAVIS RD

ZIP CODE 95207
9516 Whaley Fendel A 951-3175
9517 No Return
9522 Wilkins Tommy L 957-9399
9523 Johnsen S
9528 No Return
9529★Conrad Rick 477-0693
9534 Harmon Michl 473-3374
9535 Hori Lester
9541 White Chris T ◎ 477-2964
9547 No Return
HAVENHILL DR INTERSECTS
9601 Vacant
9607 Rapier Jerry
9610 No Return
9616 Delcima Bernard
9621★Barcus Michael ◎
9627★Fikrat Hikmat T ◎ 952-4777
9622 Breland John B 478-2377
9633 Kooyman James 951-6657
9703 Nessler Bob H ◎ 477-7234
9709★Mikami David T ◎ 478-8062
9717 Larson John Jr 951-7981
9718 Mary Kay Cosmetics 951-2294
9729 Hug Geo 957-5120
9732 Stanton Jonja ◎ 951-2641

13

NAOMI COCHRAN DR —FROM 2300 S MADISON EAST

ZIP CODE 95206
169★Orozco Edw ◎ 944-9802
113 Gamble Marlene
107 Mc Gurk Ralph B ◎ 948-5024
106 Orozco Robert ◎ 941-4624
119★Rebultan Stanley ◎
125 Vacant (125-131)
136★Munoz Joseph R ◎ 465-5457
137★Madayag Ricardo A 466-2373
142 Vacant
146 Under Constn
156 Vacant
174★Machado Geo ◎ 946-0907

97

NAVAJO DR —FROM CHISHOLM RD WEST 1 WEST OF DAVIS RD

ZIP CODE 95207
1603★Sytsma Menno J 473-7625
1609 Ruff Gary W 957-7177
1615★Agnew Bruce
1621 Wittenberg Chris ◎
1626 Lyman
1627 Hixson David 478-8866
1632 No Return
1633 Terzo Sam 473-1404
1638 Wood Monty L 951-5524
1639 Michniuk Serge 478-9406
1647 No Return
SHAWNEE CT INTERSECTS
1704 Ortega Richd
1705 Fox E R Jr ◎ 477-3618
1710 Williamson J E 951-7112
1711 Baca Theo E ◎
1716 Teixeira Mary Mrs ◎ 477-8873
1717 Pugh Kenneth C
1722 Kulhanek J M ◎ 478-7223
1723 Garcia B E 951-0586

21

NAVY DR —FROM 637 W CHARTER WAY WEST

ZIP CODE 95206
CANAL DR INTERSECTS
817 California Six Motel 946-0923
825 Interstate International Inc truck dlrs farm equip 944-5821
ARGONAUT ST INTERSECTS
1004 Interstate Truck Leasing Corp 944-0909
1022 Pacific Supply bldg matl ret 943-7301
1111 Safeway Stores Inc (Meat Processing Dept) 948-6440
1240 Stockton Scavenger Assn Inc garage 946-5711

19

PERSHING AV INTERSECTS
1440 Apartments
Francisco Gary
6b★Dill Barbra
6c★Hernandez Evela 948-9661
6d Vacant
6e Colmenares Antonio 941-0889
6f Rameriz R 941-4078
6g★Sherwood James
6h★Hernandez Greg
6i Hernandez David
6j★Gonzales Lola
6k Vacant
6l Ford Frank
1621 Valley Honey Assn 464-4714
1624 Vacant
1627 Reliance Cold Storage Warehouse Co Inc 462-3750
FRESNO ST INTERSECTS
1715 Carnation Company 466-1031
1903 D & V Machine Shop & Pump Co Inc 948-0925
Tractor Plow Co Inc 466-1105
1905 Blue Chip Products Inc tallow rendering 466-3463
2005 Holly Transportation 943-1664
2041 Lika Corporation (Div Tandy Electronics) 948-0944
2059 Nelson Ready Mix Concrete & Rock Co 466-2884
2191 Bokides Mel Petroleum Inc 943-2011
2211 Velvacon Paints 463-0914
2225 Aloma Manufacturing & Sales battery dlrs 464-9444
2313 Assured Transportation Inc trucking co 948-5969
2324 Western States Steel steel fabricators 944-9581
2345 Debco Auto Wrecking Inc 466-0161
2403 Peterson Manufacturing Co Inc tallow mfr 462-5818
2404 Stockton Construction Co 948-1181
2500 City-Municipal Utilities Department reg waste water facility 466-5261
2711 Learner Co scrap metal dlr 948-3498
2835 Union Oil Co Of Calif 944-9115
2941 Williams Tank Lines Inc 944-5613
S T C Corp auto repr 943-5662
2947 Southern Pacific Pipe Lines Inc stockton terminal 465-7369
3005 California Fuels 466-5921
3015 Time Oil Co 462-3848
S M Merchandise 463-9128
3019 Transcalifornia Terminal Corp 466-0942
3025 Stockton Petroleum Co 462-8707

25

ZIP CODE 95203
3000 U S Dept Of Navy (Naval Communications Sta) 466-6031
P G & E sub sta
3040 City Police Training Facility 464-2742
3043 Landrum Chas A 462-5404
3505 Mobil Oil Co
3605 Shell Oil Co 466-6941

80

NELLIS ST —FROM N WILSON WAY EAST 1 SOUTH OF E POPLAR ST

ZIP CODE 95205
1538b Custom Linoleum installations
1538c Vacant
1538e Vacant

46

NETHERTON AV —FROM 3400 MARSH ST SOUTH

ZIP CODE 95205
416 Hunt Jessie Mrs ◎ 464-7888
432 Liggine James H ◎ 465-6060
437 Archibeque Macario ◎ 466-7503
445 Ramirez Manuel G ◎ 465-4498
448 Alexander Herbert ◎
506 Resendes Peter A ◎ 948-5317
507 Wortham L Vernan 462-6138
507½ Castellanos Eric J
508 Rimes Lura ◎
518 Cogorno Jimmie J ◎ 463-8931
519 Trujillo Raul ◎
531 No Return
532 Rodriguez J D ◎ 464-8187
603 Brown W G ◎ 465-7392
604 Meintasis Ishmael ◎ 465-4936
615 Lujan Robt ◎ 463-3391
627★Albin Denies ◎ 948-5295
HORNER AV INTERSECTS
701 Moran Manuel ◎ 464-1938
704 No Return
710 Gianelli Cornella Mrs ◎ 463-4297
717 Moran Manuel Jr
724 Holt Darwin ◎
738 Garza Arturo ◎ 464-2559
748★Art Alice F ◎
752 No Return
762 Putman Blanche D

50

E MAIN ST INTERSECTS
836 Ojeda Elena 941-2383
E ANDERSON ST INTERSECTS
907 Presley Franklin W ◎ 464-0479
924 Whitescarver Walter L ◎ 948-4056
925 Killebrew Lillie
926 Starr John G ◎ 465-0511
928 May Robt B ◎ 464-7889
944★Vasquez R 943-1474

Termite CONTROL CO., INC.
SINCE 1934

W WASHINGTON ST—Contd
1855★Jackson Minnie L Mrs ◎ 464-3649
1857 Lopez Maria Mrs ◎ 948-0124
1858 Vacant
1870 Celestine Joseph
1875★Santos Raul 462-5358
1880 Ford Shelton ◎ 463-3325
1888 Moore Julia D Mrs ◎ 463-3256
VENTURA AV INTERSECTS
1903 Tate Carolyn
★Valverde Eleanor 467-8261
1905 Don's Body Repair car body shop 464-3404
1947 Navarro Tommy 467-0337
2005 Duraflame Inc firelog sls & admn ofcs 948-2515
2040 Cal-Farm Supply Co agrl sups 943-6111
San Joaquin County Farm Supply Co 465-4141

25

S P TRACK CROSS
NAVAL ANNEX RD INTERSECTS
2115 Pacific Molasses Co whol 464-7329
2130 P M S Of California Inc liquid cattle feed 466-4391
2201 Port Of Stockton Administration Building 946-0246
Cargill Incorporated distr molasses 946-0914
Stockton Port District piers docks & wharves 946-0246
Penney J C Co Inc control whse 466-5183
Port Stockton Railroad Yard (Ofc) 462-7952
Nicholas Communications 462-5390
Inland Grain Co grain sls 463-0027
Genstar Cement & Lime Co-Calaveras concrete ready-mix 465-2624
2303 Northern California Grain Exchange 946-0432
2305 Commercial Exchange Club Inc cocktail lounge private club 466-0184
2321 World Trades Building
ROOMS
A Vacant
B Winter R W Co onion & potato brokers 466-7019
C California Anmonia Co 466-0568
D State Of California Market News Serv 466-0881
F Valpey Grain Co 466-5851
J Vacant
K Vacant
STREET CONTINUED
2400a Robertson H H Co 943-2124
2403 Building
Rooms
1 State Dept Of Agrl (Ship Point Insp) 462-3749
24 State Dept Of Agrl (Canning Tomato Insp) 465-4345
50 State Grain & Commodity Inspection 466-0441
2700 Arco oil producers 466-4408
Van De Pol Enterprises 465-3421
2845 Riverside Cement Co distr 948-0529
STOCKTON BELT R R TRACK CROSSES
STORK RD INTERSECTS

WATERLOO RD —FROM 900 N WILSON WAY NORTHEAST

ZIP CODD 95205
902 Stockton Carpet Center carpet sls 941-0955
940 Vacant
944 Risso's Restaurant 466-0016
Risso's Cocktail Lounge 466-0016
969 Super Shop Inc auto parts 943-5488
982 Hugo's Garage 946-0474
SCHOOL ST INTERSECTS
1002 Gordon's Club tavern 946-9005
1020 B & B Produce fruits & veg 944-0724
E ACACIA INTERSECTS
PLEASANT ST INTERSECTS
1031 Valley Commercial Bank 943-7981
1048 Eddie's Pizza 462-1113
1060 Vacant
1064 Vacant

82

ROOSEVELT ST INTERSECTS
1104 Vacant
1104a Vacant
1105 Allied Industrial Gas & Welding Supply 465-3429
Balloonery The 466-3601
1108 Vacant
1120 Vacant
1125 Mutual Grocery Co United Groceries 465-0271
1132 Happell's Prescription Pharmacy 466-2522
1140 Builders Emporium Stores bldg materials 466-9711
SYCAMORE AV INTERSECTS
1201 Big & Little Used Cars 462-9145
1215 Whse
1221 Peirano Frank L ◎ 463-0907
1225 Carigiet E ◎
1241★Cross Terri
1243 Crawford C
1249 Star Trading Co antiques 463-5346
1253 Aulgur Dixie
1255 Haynes Lena 948-2339
HIAWATHA AV INTERSECTS
1275 Santarosa Caterina ◎ 464-2079
E HARDING WY INTERSECTS
1533 Kalman Industries
Vacant
1534 Lewis Tillie Foods Inc (Wilson Plant Ofc) 946-4011
1536 Savex Save-Mart No 2 gro 466-5011

92

SANGUINETTI LA INTERSECTS
2116 Vacant
2204 No Return
2205 Peirano's Cafe 462-4138
Western Refrigeration & Air Conditioning 464-0427
Peirano's Tavern 462-4138
2206 Bonner Marie A Mrs 465-9210
2208 No Return
2212 Jenkins Gene E 948-6723
2224 Vacant
2232 Precision Auto Repair 463-2997
WILLIAMS ST INTERSECTS
2233 Vacant
2249 John Ray Co Inc roofing drywall & insulation 466-3561
2252 Vacant
2272 City Tire Service 464-0549
2294 Empire Glass Co 466-0414
NORTH E ST INTERSECTS

80

2300 Building
Suites
1 Keel Richd J acct 941-4346
5 Aztec Tour Service 466-8566
STREET CONTINUED
2303 Vacant
2305★Raynor Floyd 463-3255
2306 Vacant
2307 Custom House Plans designers 465-6730
2308 Vacant
2309 Hub Cap King 943-7762
2310 Windmill Antiques & Used Furniture 944-0942
BELVEDERE AV INTERSECTS
2329 Vacant
2332 Nelson Don
2349 Mid-Valley Tile Distributors 464-4854
2350 Larry's Beacon Station No 419 462-4569
2355 California Floor Covering carpets & lineoleum 466-4939
SIERRA LA INTERSECTS
2359 Vacant
Brice's Original Pocket Bread 465-9866
2361 Hope's Screen Arts screen printing 941-4100
2362 Wilson Minnie
2366 Vacant
2370 Vacant
2377 Home Supply Tool Rental Inc 465-2693
SIERRA LA INTERSECTS
2382 Martin's Auto & Truck Repair 465-0652
2385 Quality Tile Co ceramic tile contr 466-6220
2386 Woodruff Custom Painting 463-6761
NORTH F ST INTERSECTS
2415 Vacant
2416 Hutton's Building Material
★Hutton Robt ◎ 463-9964
2420 Stockton Transmission Exchange 462-2788
2423 Kamper Korner 463-8111
2426 Vacant
2428 No Return
2435 Waterloo Court Apartments
1 Gilmore Kermit 465-0617
2 Vacant
7 Cano Vrdusco Rafael 462-3295
8★Caballero Tony 467-4031
10 No Return
2442 Burton's Cycle Shop 948-5361
2450 Burton's Cycle Shop (Stge)
2455 Hank & Tony's Inc bldg supplies 465-3463
2458 Valley Marine boat sls & serv 464-1557
2477 Four Seasons Catering 464-9411
Natali Catering 931-2379
2489 Waterloo Car & Truck Wash 941-2888

100

FILBERT AV INTERSECTS
2504 Vacant
2512 Waterloo Liquor 463-4114
2526 Apartments
1 Vacant
2 Reynolds Thurman
3 Baxter A L
2530 Marion's Drive Inn restr 465-9306
2537 E-Z Food Store 463-5435
AUTO AV INTERSECTS
2571 Snow White Bakery whol & ret 466-6624

num and Vinyl Sid
Blinds • Venetian Bli
Shades all Styles)
License No. C61-
SINCE 1946
1120 WEST FREMONT STOCKTON CA 95205 466-5467
SUKIYAKI - TERIYAKI - TEMPURA - SUSHI
Tel. 466-7523
ornia St.

Details For:	Year	Source	TP	Adjoining
WASHINGTON ST W	1984	R. L. Polk Co., Publishers	-	X

ZAMORA / WONDRIES GROUP "PEOPLE SERVING PEOPLE"
OPEN 7 DAYS A WEEK
Authorized Parts & Service
TOYOTA TOWN

235

NANTUCKET DR –FROM CHELSEA DR NORTH 1 EAST OF DAVIS RD

ZIP CODE 95207
9516 Whaley Fendel ◎ 951-3175
9517 Trinchera Salvatore ◎ 951-7574
9522★Mc Pherson Kenneth 476-1830
9523 Johnsen S
9528 No Return
9529 No Return
9534 Harmon Michl J 473-3374
9535★Hori Helen H
9541★Abou-Elias Antoun A ◎ 477-3959
9547 Hebron Manuel E ◎ 474-6303
HAVENHILL DR INTERSECTS
9601 No Return
9607 No Return
9610 No Return
9616 Del Cima Bernard ◎
9621★Seals Gregory S 472-9052
9622★Parrish Kevin 952-5533
9703 Nessler Bob H ◎ 477-7234
9709★Gardner Robert L 951-7667
9717★Miller Micheal L 477-0333
9718 Stapleton John L
9729 Hug Geo 957-5120
9732 Stanton Ray

13

NAOMI COCHRAN DR –FROM 2300 S COMMERCE ST WEST

ZIP CODE 95206
106 Orozco Robt ◎ 941-4624
107 Mc Gurk Ralph B ◎
113 Gamble Darlene ◎
119 Rebultan Stanley ◎
125 Rodriguez Edw D
131 Ternura Nelson ◎
136 Munoz Joseph R ◎ 465-5457
137 Madayag Ricardo A 466-2373
142 Arnold Ken
150★Langas Peter ◎ 943-7409
156 Guillena Ruffino ◎ 465-5559
162 Wilson Steve ◎
168★Martin Lance
169 Pleasant Gerald
174 No Return

97

NAVAJO DR –FROM CHISHOLM RD 1 WEST OF DAVIS RD

ZIP CODE 95207
1603 Sytsma Menno ◎ 473-7625
1609 Hopson Marvin ◎ 957-7177
1615 Agnew Bruce C ◎
1621 No Return
1626 Lyman Don
1627 Hixson David ◎ 478-8866
1632 Santos Bethel L 478-5889
1633 Terzo Sam ◎ 473-1404
1638 No Return
1639 Michniuk Serge 478-9406
1647 Mc Gregor
SHAWNEE CT INTERSECTS
1704 Ortega Richd
1705 Fox Edw R Jr ◎ 477-3618
1710 Williamson J E ◎ 951-7112
1711 Baca Margt M ◎
1716 Teixeira Mary Mrs ◎ 477-8873
1717 Pugh
1722 Kulhanek J M
1723 Garcia Frank L ◎ 951-0586

21

NAVY DR –FROM 637 W CHARTER WAY WEST

ZIP CODE 95206
CANAL DR INTERSECTS
817 Allstar Inns 946-0923
825 Interstate International truck dlrs farm equip 944-5821
ARGONAUT ST INTERSECTS
1004 Vacant
1022 Delta Material Sup bldg matl ret 464-7480
1111 Safeway Stores Inc (Meat Processing Dept) 948-6440
1240 Stockton Scavenger Assn Inc 946-5711
Nor-Cal Pre-Construction Systems constn materials 466-1808

19

PERSHING AV INTERSECTS
1440 Apartments
1443 Lika Corporation electronics mfg 948-0944
1621 Dan-D-Manufacturing sheet metal work 948-9185
1624 Don Ivestments 463-0376
1627 Reliance Cold Storage Warehouse Co Inc 462-3750
FRESNO ST INTERSECTS
1715 Vacant
1807 Vacant
1815 Silgan Containers Corp canners sups 466-1031
1903 D & V Steel Fabricators 948-0925
D & V Machine Shop & Pump Co Inc 948-0925
Tractor Plow Co Inc 466-1105
2005 Laidlaw Transit Inc 466-4706
2041 Vacant
2059 Nelson Ready Mix Concrete & Rock Co 466-2884
2191 Bokides Mel Petroleum Inc oil marketers 943-2011
2211 Contract Coatings Corp paint mfrs 463-0914
2219 Vacant
2225 Fluhrer Fabricating steel fabricators 467-8328
A & D Auto Body auto body repr 464-3316
S & D Ornamental Iron Wks ornamental iron splsts 463-3316
2313 Winter Trucking 466-5648
Bert's Diesel Repair 944-9920
Fredericksen Tank Lines 948-0260
2324 P D M Strocal Inc steel fabricators 948-4600
2345 Debco Auto Wrecking Inc 466-0161
2403 Pacific Sierra Transportation Inc trucking cos 948-6274
Blackmum Equipment Leasing 957-2241
2404 Stockton Construction Co bldg contrs 465-3507
2500 City-Municipal Utilities Department 944-8750
2711 Learner Co scrap metal dlr 948-3498
2835 Jemco Union Oil Co Of Calif 944-9115
2941 Williams Tank Lines Inc trucking 944-5613
S T Services gas storage terminal 943-5662
2947 Southern Pacific Pipe Lines Inc stockton terminal 465-7369
3000 U S Dept Of Navy (Naval Communications Sta) 957-9522
P G & E sub sta 466-8800
3003 Tesoro Petroleum Co refining marketing & supply co 466-8800
3005 California Fuels oil & lubricants dlrs 466-5921
3015 Time Oil Co petroleum producer & shipper 462-3848
3019 Transcalifornia Terminal Corp fertilizer stge & distr 466-0942
3025 Exxon Stockton Petroleum oil co
3040 City Police Training Facility 464-2742
3043 Vacant

25

ZIP CODE 95203
3505 B P Oil Co 466-6832
3515 Shell Oil Co 466-6941
Ramos Oil Co

80

NELLIS ST –FROM N WILSON WAY EAST 1 SOUTH OF E POPLAR ST

ZIP CODE 95205
1538b J G Quality Body Shop auto reprs 467-1740
1538c Ronia Electronic 941-8060
1538e Vacant

46

NETHERTON AV –FROM 3400 MARSH ST SOUTH

ZIP CODE 95205
416 Hunt Jessie Mrs ◎ 464-7888
432 Liggine James H ◎ 465-6060
437 Archibeque Macario ◎ 466-7503
445 Gomez Candido
448 Alexander Herbert ◎
506 Peter's Mobile Shop auto body reprmn 948-5317
Resendes Peter A ◎ 948-5317
507★De La O Danl
507½★Hernandez G
508 Rimes Lura ◎
518 Wade Michl ◎
518½ Vacant
519 Trujillo Raul ◎
531 Lindsey Gary
532 Rodriguez J D ◎ 464-8187
603 Brown W G ◎ 465-7392
604 Meintasis Ishmael ◎ 465-4936
615 Lujan Robt ◎ 463-3391
627 Montgomery L ◎
HORNER AV INTERSECTS
701 Moran Manuel M ◎ 464-1938
704 Felix Gilbert
710 Gianelli Cornella Mrs ◎ 463-4297
717 Moran Robt M ◎ 464-1938
724 Horton Hazel C ◎ 465-7751
738 Garza Arturo ◎ 464-2559
748 Rack Alice F ◎
752 Williams Dale B ◎ 465-1909
762 Hedrick Troy ◎ 463-7671

50

E MAIN ST INTERSECTS
836 Bredy Mary 948-2074
E ANDERSON ST INTERSECTS
907 Presley Franklin W ◎ 464-0479
924★Starr John ◎
925★Wade Kenneth 943-5387
926 Starr John G ◎ 465-0511
928 May Gina ◎
938 May Robt B
944 Rimes Linda M 948-9575
945★Pritchard Nancy Mrs

Details For:	Year	Source	TP	Adjoining
NAVY DR	1990	R. L. Polk Co., Publishers	-	X

WASHINGTON ST WEST –FROM 210 S CENTER ST WEST 901

ZIP CODE 95202
S COMMERCE INTERSECTS
ZIP CODE 95203
S MADISON INTERSECTS

3

S MONROE ST INTERSECTS
S VAN BUREN ST INTERSECTS
S LINCOLN ST INTERSECTS
S HARRISON ST INTERSECTS
S EDISON ST INTERSECTS
333 Pacific Horizons sch 944-4310

17

MC DOUGALD CANAL CROSSES
S STOCKTON ST INTERSECTS
S YOSMITE ST INTERSECTS
S SAN JOSE ST INTERSECTS
S ARGONAUT ST INTERSECTS
S ORANGE ST INTERSECTS
1214 Mc Cormick & Baxter Creosoting Co 465-5767
1340 California Cedar Products sawdust & shaving dlrs 944-5800
S PERSHING AV INTERSECTS
S MADERA AV INTERSECTS
1605 Cooley Jesse E Junior Funeral Service 948-9750
1631 Belluomini Theresa L Mrs ◎ 465-2344
1637 Bowerman Mike
FRESNO AV INTERSECTS
1701 City Fire Dept
1736 No Return
1754 No Return
1756 No Return
S LOS ANGELES AV INTERSECTS
1801 Ya Bun 465-5436
1815 Morris A ◎
1822 Coronado Raymond ◎
1828 Quisnondo Brenda
1834 Abujen C A ◎ 463-6823
1845 Little Flock Baptist Church 462-3765
DEL MONTE INTERSECTS
1848 Hodge Lola Mrs ◎ 463-8197
1855★Jackson Minnie Lee ◎
1857★Lopez Frank
1858 Hernandez Jesus
1870 No Return
1875 Santos Raul 462-5358
1880 Ford Shelton ◎ 465-9126
1888 Armstrong Terri ◎
VENTURA AV INTERSECTS
1903 Miller Dwane L
1905 Stocketon Generator Exchange Inc 943-1984
1949 Navarro Tommy 467-0337
2005 Duraflame Incorporated firelog sls & admn ofcs 948-2515
2040 Vacant

25

NAVAL ANNEX RD INTERSECTS
2115 Pacific Molasses Co whol 464-7329
2130 Puregro (Food Div) liquid cattle feed 466-4391
2201 Port Of Stockton piers docks wharves 946-0246
Stockton Port District piers docks & wharves 946-0246
Nicholas Communications 462-5390
Island Grain Co dlrs 465-5843
Calaveras Cement 465-2624
2303 Northern California Grain Exchange 946-0432
2305 Commercial Exchange Club Inc cocktail lounge private club 466-0184
2321 World Trades Building
Rooms
A Monolithic Constructors Inc (Extra Ofc) const
B Delta Pacific Serv Inc 467-1400
C Monolithic Constructors Inc (David South) 466-4903
D State Food & Agrl Dept (Fed State Mkt News Serv) 466-0881
E Monolithic Constructors Inc (Extra Ofc) 943-2943
F Monolithic Constructors Inc (Extra Ofc)
G Guynup Enterprises
H Cen Cal Cement 462-6252
2321 S J C Air Control District 468-3470
2400a Vacant
2403 Building
Rooms
1 Vacant
20 State Dept Of Agrl(Wine Grape Onion-Garlic Insp) 466-0473
24 Vacant
50 State Dept Of Agrl (Grain & Commodity Inspection) 466-0441
2526 Sithe Energies U S A Inc (Generation Power Plant) 467-3838
Cogeneration National Corp 462-2723
Swinerton & Walberg Builders 942-0171
Schneider Incorporated 464-3709
2700 Atlantic Richfield oil producers 466-4408
2829 Tri Delta Fertilizer Inc landscape gdnrs 942-0417
2845 Riverside Cement Co distr 948-0529
STOCKTON BELT R R TRACK CROSSES
STORK RD INTERSECTS

WATERLOO RD –FROM 900 N WILSON WAY NORTHEAST 80

ZIP CODD 95205
902 Vacant
940 Vacant
944 Risso's Restaurant Inc 466-0016
Risso's Cocktail Lounge 466-0016
969 Super Shops Automotive auto repr 943-5488
982 Vacant
SCHOOL ST INTERSECTS
1002 Gordon's Club tavern 946-9005
E ACACIA INTERSECTS
PLEASANT ST INTERSECTS
1031 Valley Commercial Bank 941-2265
1048 Eddie's Pizza 462-1113
1064 Texas West Family Restaurant restr 466-2990

82

ROOSEVELT ST INTERSECTS
1105 Moore Brothers 465-3429
Vacant
1108-1 Donna's Kitchen 462-8860
1108-2 Visual Changes haircuts
1108-3 Vacant
1108-4 Aaren's Beauty Care Cntr 941-8399
1108-5 Starlite Video 464-7182
1108-6 Qualified Private Security Servs 942-1108
1108-7 Keener Pies 466-7437
1115 M & K Medical clinic 466-3211
1119 John's Drapery & Carpets 466-2864
1120 Waterloo Pavillion 462-1011
1121 Roland Construction Inc 462-2687
1125 E B J Wholesale 465-0271
1140-1 Vacant
1140-2 Awan Garments clothing 465-6012
1140-3 La Costa restr
1140-4 Lundy's Nutrition & Yogurt Shop 464-5738
1140-5 Domino's Pizza 462-3000
1140-6 Papachristos John chiro
1140-7 Sil's italian deli-catering 466-3354
SYCAMORE AV INTERSECTS
1201 C & R Auto Sales 943-0535
1215 Vacant
1221 Peirano Frank L ◎ 463-0907
1225 Cottle Ed ◎
1243 A-1 Ambulance Service 466-0223
1249 Star Trading Co 463-5346
Star Motor 463-5346
1253 Vacant
1255 Vacant
HIAWATHA AV INTERSECTS
1275 Santarosa Caterina ◎ 464-2079
E HARDING WY INTERSECTS
1400 Ragu Foods Inc 466-9580
1530 Happell's Pharmacy 466-2522
1533 Stockton Metal Recycling 942-2267
1536 Save-Mart Of Stockton No 2 gro 466-5011

92

SANGUINETTI LA INTERSECTS
2116 Rolling Sounds Car Stereo 941-2577
2204 Munes Annette 463-3617
2205 Peirano's Cafe 462-4138
Western Refrigeration & Air Conditioning 464-0427
Peirano's Tavern 462-4138
2206 Bonner Marie A Mrs 465-9210
2208 St Clair Bill
2212 Jenkins Gene E 948-6723
2224 California Floor Covering rugs & linoleum sls 466-4939
2232 Precision Auto Repair 463-2997
WILLIAMS ST INTERSECTS
2233 Vacant
2249 John Ray Co Inc roofing drywall whol-ret 466-3561
2252 Golden State Body Shop auto body repr 464-8304
2272 City Tire & Automotive Service 464-0549
2294 Empire Glass Co 466-0414
NORTH E ST INTERSECTS
2300 Building
Suites
1 Mama's Take-N-Bake restr-pizza 463-4061
3 Rainbow Ceramics 466-1630
5 Irene's Style Shop beauty salon 466-2500
6 Nicko Psychic Astrologer 462-2283
2303 De Shane Tax 19 income tax preparer 465-8405
2309 Hub Cap King 943-7762
2310 No Return
BELVEDERE AV INTERSECTS
2329 Quik Sales Used Cars 465-4622
2332 Nelson Don 957-2089
2349 Crafts Unlimited China Closet 400-1014
2350 Larry's Beacon Station No 419 462-4569
2355 Jordan's Collectibles bsktball-bseball-ftball cards 462-0203

808 & 820 N. UNION ST., STOCKTON, CALIFORNIA 95205
P.O. BOX 508, STOCKTON, CALIFORNIA 95201
PHONE: 209/464-8333
VAPOR RECOVERY EQUIPMENT
RVICE, INSTALLATION OF PETROLEUM DISPENSING, AUTOMOTIVE SERVICING EQUIPMENT

4600 N. Pershing Av., Suite D
Inc., REALTORS®
and Garden
Tel. 47

Details For: W WASHINGTON ST | Year 1990 | Source R. L. Polk Co., Publishers | TP - | Adjoining X

NADINE LN
Moran Kathy L
4724 Ballmer Theodore M [3]
Ballmer Karleen A
4731 Olarte Charles N [9]+ ♠
.....474-9023
Olarte Dionisia M 474-9023
4743(M)Bennett Tamara M
4755(M)Jocson John C ♠
Jocson Ben C
4767(M)Mendoza Martin
Mendoza Eva
4779 Long R & Donna [9]+ ♠
+*VADA WAY ENDS*
HOUSEHOLDS 7

NADOTTI RD (STOCKTON)-FROM 1202 DARRIGO LN
· ZIP CODE 95215 CAR-RT C013
4801 Gonzales Kellie D [2]
4804 Not Verified
4808 Coleman Donald R [9]+ ♠
.....931-4006
Coleman Lance S.....931-4006
STOCKTON LASER CHARGE
CO repair svcs .931-4465
4810 Lucchesi Deanna M [7] ♠
.....931-5983
Lucchesi Daniel P Sr.931-5983
4849 Not Verified
4949 Castelo Richard J [9]+ ♠
Castelo Marie S
Oliva Carmen S [9]+ ♠
Oliva Valerie D
A Not Verified
4950 Berg Roy T & Kathleen [9]+ ♠
.....931-3968
5080(M)Nagata Lynn L ♠
BUSINESSES 1 HOUSEHOLDS 10

NANTUCKET DR (STOCKTON)-FROM 1399 CHELSEA WAY NORTH
· ZIP CODE 95209 CAR-RT C017
9516 Whaley Eleanor R [9]+ ♠
.....951-3175
Whaley Ruth E 951-3175
9517 Trinchera Denise L [9]+ ♠
9522 Svoboda Joseph J [6] ♠
Svoboda Nancy L
9523 Johnsen Susan J [9]+ ♠
Johnsen Gilbert N
9528 Lozano Ronnie J & Tammy
[9]+ ♠
9529 Shadrick Grady D [9]+ ♠
Shadrick Nora M
9534(M)Harmon Michael J 473-3374
9535 Hori Lester T [9]+ ♠..478-0928
Hori Helen H 478-0928
9541 Farah Sophia J [4] ♠
Farah Boutros
9547 Not Verified
+*HAVENHILL WAY ENDS*
9601 Harrison Allen J [2] ♠474-2327
Harrison Jalon A.....474-2327
9607 Rapier Jerry D [9]+ ♠
Rapier Brenda C
9610 Franco Maria H [4]
9616 Delcima Bernard L [9]+ ♠
.....477-2931
Delcima Carol L.....477-2931
9621 Seals Gregory S & Daylin [5]+
♠ 472-9052
9622 Parrish Kevin L [9]+ ♠
.....952-5533
Parrish Jeri V 952-5533
9627 Perrine Lily J [4] ♠ 476-1566
Perrine Russell L.....476-1566
9633 Romero Carlos H & Sandra
[9]+ ♠
9703 McIntosh Kristina L [7] ♠
9709 Gardner Robert L [9]+ ♠
.....951-7667
Gardner Andrea R 951-7667
9717 Miller Michael L & Diana [9]+
♠ 477-0333
9718 Green Eddie B & Lanita [7] ♠
.....478-2001
9729 Hug Isabelle M [9]+ ♠
.....957-5120
Hug George H.....957-5120
9732 Casao Gil A [9]+ ♠
9783(M)McIntosh Gregory Jr
+*CHAPARRAL WAY INTERSECTS*
HOUSEHOLDS 25

NAOMI COCHRAN DR (STOCKTON)-FROM 2365 S COMMERCE ST SOUTHWEST
· ZIP CODE 95206 CAR-RT C016
106 Orozco Robert [9]+ ♠
Orozco Lupe G
107(M)Gavino Aurora S
113 Gamble Darlene M [9]+ ♠
119 Gibson Roger D Jr [2] ♠
125(M)Mendez Rafael ♠
131(M)Gascon Anesia G
Gascon Nacor O
136 Munoz Joseph R [9]+ ♠
.....465-5457
Munoz Maria E.....465-5457
137 Madayag Ricardo A [9]+ ♠
.....466-2373
Madayag Juana F 466-2373
142 Arnold Kenneth L Sr [9]+ ♠
Arnold Alice M
150 Langas Peter D [9]+ ♠
Langas Nelita G
156 Guillena Ruffino & Elena [9]+ ♠
.....465-5559
162 Wilson Steven R [9]+ ♠
Wilson Angelica M
168(M)Scott Joe 463-7962
169 Orozco Edward [9]+ ♠
Orozco Roberta R
174 Hall Tommie L Sr [9]+ ♠
+*S MADISON ST INTERSECTS*
HOUSEHOLDS 15

NAPA RIVER DR (STOCKTON)-FROM 2439 VOLPI DR SOUTH
· ZIP CODE 95206 CAR-RT C018
2008 Callaway Beverly L [7] ♠
.....463-9411

NAPA RIVER DR
Callaway David A.....463-9411
2009 Silva Manuel F & Joyce [9]+
♠ 467-4257
2015 Gaut Jon R Sr [7] ♠
Gaut Natalie
2016(M)Lima Vilma E.....942-1142
2023 Chelossi Dante P [9]+ ♠
Chelossi Catherine A
2024 Zaragoza John [3] ♠
Zaragoza Alma R
2031(M)Knight Russell A ♠
2032 Dawson Stephen & Lorrine [4]
♠
2037 Sicsic Alberto J [9]+ ♠
.....463-6805
Sicsic Helen M 463-6805
2040(M)Olivares Irene ♠
2046 Carter-Stroud Brenda C [5] ♠
2049(M)Padre Procarlina.....460-0839
2110 Not Verified
2111 Peralta Reggie G [7] ♠
Peralta Francis D
2123(M)Falls Stephen E
2124 Padre Ronnie T [6] ♠
Padre Imelda B
2135 Orona James L [2]
2136 Krupp Irlanda T [7] ♠
Krupp Jeffrey J
2147 Enriquez Rudolpho V Jr [2] ♠
Enriquez Lillian L
2148 Brooks Anthony T [5] ♠
2159 Bridges Ronald D & Cynthia
[2] ♠.....465-2043
2160 Johnson Adrian E [5] ♠
Johnson Lolettee D
2171 Leuck Nicholas P [2] ♠
2172 Not Verified
2183 Bailey Emmit L & Bonita [2] ♠
2199 Deal Michael P [6] ♠
Deal Deborah A
+*BLUE TEES DR ENDS*
HOUSEHOLDS 26

NAPOLEON ST (STOCKTON)-FROM 5401 GOVERNOR CIR EAST
+*LORRAINE AVE INTERSECTS*
· ZIP CODE 95210 CAR-RT C054
2304 Sousa Joe A [5].....941-2725
2305 Ham Dores [2].....475-0174
2318(M)Villegas John P ♠
Villegas Elba L
2331 Hamlet S F [8] ♠
Hamlet Basil T
174 Wong S F [9]+ ♠
2332 Kwok Allan T & Betty [5] ♠
.....951-6750
2346(M)Greensmith Dawn V
2357 McSherry James [3]....951-3206
2360 Dy Chettha C [8] ♠
Dy Sokhorn P
2373 Wong Jason G [2] ♠
Wong Sau
2374 Rivera Della M [2] ♠
Rivera Michael J
2387 Martin Vikilyn J [2] ♠
+*HANNA BAY AVE ENDS*
2399(M)Keplinger Amy L
Wakefield Sean P [2] ♠
2408 Castillo Jorge A & Sylvia [2] ♠
2411 Langworthy Timothy R [5] ♠
Langworthy Kimberly A
2414 Slan Genine [2] ♠
2417 Not Verified
2420 Murray Michael L & Theresa
[2] ♠
+*HERMITAGE AVE BEGINS*
2434 Davis Robin E [2] ♠
2440 Gray Lavera A [2]
(M)Wilson Lavera A 952-8190
2448 Arredondo Arthur E [4] ♠
Arredondo Mary L
2456 Eang Keang K [2]
(M)Oum Mao C 956-6958
+*LYLE AVE INTERSECTS*
HOUSEHOLDS 25

NASSANO DR (STOCKTON)-FROM 5301 HILDRETH LN NORTH
· ZIP CODE 95212 CAR-RT C005
8884 Brown Almeda M [9]+ ♠
.....931-1141
8909 Molder Gertrude J [9]+ ♠
8918 McCann David T [9]+ ♠
McCann Susan P
8932 Landucci Jeff A [9]+ ♠
Landucci Lucille M
8939 Not Verified
8948(M)Nakashima William....931-3023
8957 Ball Robert C [9]+ ♠ .931-4951
Ball Janice M.....931-4951
+*OAKVIEW LN BEGINS*
9000 Little Mary J [9]+ ♠
9015 Covert Hutty L & Dianne [9]+
♠
9039 Fukushima Kenneth T [9]+ ♠
.....931-2904
Fukushima Mary K.....931-2904
9061 Rice Norman C & Martha [9]+
♠.....931-3121
9066 Farr Edward S [9]+ ♠931-2483
Farr Laverne D 931-2483
9115 Brause Kurt Sr [9]+ ♠
Brause Suzanne M
9124 Colavita Michael M & Joan
[9]+ ♠
+*HARWOOD LN INTERSECTS*
9154 Koeyman Irving T [8] ♠
9157 Treskon Albert F [9]+ ♠
.....931-3281
Treskon Katherine C..931-3281
9209 Stevens Fred H [9]+ ♠
.....931-2133
Stevens Erylenie L.....931-2133
9212 Fisher James J [9]+ ♠
.....931-1882
Fisher Rosemarie 931-1882
9227 Masten Richardson & Linda
[9]+ ♠
9230(M)Almanza Amador Jr ♠

NASSANO DR
Almanza Samantha L
9245(M)Hogan Carole B.....931-5734
(M)Hogan James R.....931-5734
9248 Moran Frank E [9]+ ♠
.....474-3262
Moran Athena E.....474-3262
9262 Buscaglia Chris J [7] ♠
Buscaglia Wendy J
9263(M)Cuneo Nancy L ♠
HOUSEHOLDS 25

NATALI RD (STOCKTON)-
· ZIP CODE 95206 CAR-RT R005
2565 Serrano Margarita [3]
HOUSEHOLDS 1

NATHANIEL ST (STOCKTON)-
· ZIP CODE 95210 CAR-RT C054
2416(M)Donesa Jose P ♠
Donesa Marilyn T
2428 Grant James Jr [2] ♠
2436(M)Asberry Adrienne E ♠
2452(M)Diaz Maria D 954-1076
2453 Favela Jose C Jr [2] ♠
.....956-4953
Favela Cynthia J.....956-4953
2467(M)Smith Vernon L ♠
Smith Rhonda L
2468 Reynolds Mckinsley R [2]
Reynolds Rebecca L
2473 Garcia Alejandro F [2] ♠
Garcia Leobardo R
2476 Crouch Joseph & Sammie [3]
♠
2488(M)Puckett William A ♠
Puckett Vikki L
HOUSEHOLDS 10

NAUTICAL CT (STOCKTON)-
· ZIP CODE 95206 CAR-RT R011
3326(M)Kellum Cory D ♠
3327(M)Fungula Eric M ♠
3334(M)Duran Franklin J Jr ♠
3342 (M)Krider Joseph E ♠
3350(M)Emery Dennis P ♠
Emery Connie D
HOUSEHOLDS 5

NAVAJO DR (STOCKTON)-FROM 9499 SHAWNEE CT EAST
· ZIP CODE 95209 CAR-RT C027
1603 Hightower James E [6] ♠
.....478-7833
Hightower Bettie J.....478-7833
1609 Not Verified
1615 Agnew Bruce C [9]+ ♠
Agnew Judy J
1621 Steele Robert D II [9]+ ♠
Steele Brenda H
+*PUEBLO CT CONTINUES*
1626 CALIFORNIA SWINE
SERVICES lvstck svcs
.....474-6022
Lyman Cheri J [9]+ ♠
Lyman Donald R
1627 Hixson David L [9]+ ♠
Hixson Gail M
1632 Not Verified
1633 Terzo Kellie S [9]+ ♠
Terzo Tracie L
1638(M)Aceves Ruben ♠
Aceves Lorenza A
(M)Barro Enriqueta G
1639 Michniuk Serge [9]+ ♠
.....478-9406
Michniuk Bernice C.....478-9406
1647 Michniuk Dennis M [8] ♠
Michniuk Patricia E
+*SHAWNEE CT ENDS*
+*CHISHOLM WAY CONTINUES*
1704(M)Delgado Marc A
1705 Not Verified
1711 Jones Shirlee M [3]
1716 Teixeira Manuel M [9]+ ♠
.....477-8873
Teixeira Mary J 477-8873
1717(M)Phearson Deborah G
.....952-5772
1722 Kith Michael P & Pomra [8] ♠
1723 Garcia Jon C & Bonnie [9]+ ♠
.....951-0586
+*PUEBLO CT ENDS*
BUSINESSES 1 HOUSEHOLDS 19

NAVONE RD (STOCKTON)-FROM 6699 HARDAWAY RD
· ZIP CODE 95215 CAR-RT R003
2881 FERRO UNION metls svc
cntrs.....931-3377
3301 CALIFORNIA DIVISION asph
felts coating 931-1277
3901(M)Royse George C ♠
DOWN RIVER FOREST
PRODUCTS fbr cans
drms prd 931-0917
+*E FAIRCHILD RD INTERSECTS*
6840 BEST LOGISTICS lumbr plywd
millw.....931-5849
BUSINESSES 4 HOUSEHOLDS 1

NAVY DR (STOCKTON)-FROM 799 DELTA WAY WEST
+*N STOCKTON ST INTERSECTS*
· ZIP CODE 95206 CAR-RT C014
817 Fronczak Stanley W [4] ♠
Fronczak Leslie M
(M)McAvoy Leslie D
MOTEL 6 hotels & motels
.....946-0923
825 INTERSTATE TRUCK CENTER
auto othr mtr vhcl.....944-5821
1002 CENTRAL PALLETS lumbr
plywd millw.....933-0403
1004 MISTER SPEAR vegetables
melons 464-5365
1111 STOCKTON MEAT PLANT
sausg oth prep meat .948-6440
1240 STOCKTON SCAVENGERS
ASSN lcl trckg.....946-5721

NAVY DR
+*N PERSHING AVE INTERSECTS*
+*S PERSHING AVE INTERSECTS*
1443(M)Nsheiwat Raya T ♠
VIKTRON LIKA DIVISION
printed circt brds
.....948-0944
+*JOSEPHINE ST BEGINS*
1621 GREENLINE LANDSCAPING &
MAINTENANCE lawn garden
svcs.....933-0327
+*RAILROAD CROSSES*
1627 RELIANCE COLD STORAGE
WHLSE CO rfrgt wrhsg storag
.....462-3750
1807 NETH CONSTRUCTION
nonresid constr.....466-5038
A GENERAL TECTONICS
sngl-fam hsng cnstr
.....469-9147
1815 SILGAN CONTAINERS CORP
metal cans.....466-1031
1903 D & V MACHINE SHOP
PUMP CO indus mach
.....948-0925
TRACTOR PLOW CO 466-1105
1905 STOCKTON PETROLEUM CO
petroleum prdts.....462-8707
2005 Not Verified
2041 ALL FRIGN DMESTICS AUTO
BDY SP scrap waste mtrls
.....462-6695
Cruz Tresa M [3].....941-2126
Cruz Jose A 941-2126
+*TILLIE LEWIS DR BEGINS*
2191 M B P OLYMPIAN petro blk
stns tmn 943-2011
2211 CON-TECH mtl ctng alld svcs
.....941-8324
Williams Steve A [3] ♠
2219 MEL'S AUTO DISMANTLERS
mtr vhcl prts used.....462-8394
2225 ADVANCED METAL
FABRICATION fbrctcd strctrl
mtl.....939-1024
TRINITY MOUNTAIN WATER
CO drct sling estbmnts
.....547-9115
2313 STOCKTON SANITARY WASH
RACK sanitary svcs ...546-0171
2324 PDM STROCAL fbrctcd strctrl
mtl.....948-4600
2345 Bedford John J [5] ♠
Bedford Shirley A
DEBCO AUTO WRECKING
mtr vhcl prts used
.....466-0164
2403 Not Verified
2500 MUNICIPAL UTILITIES DEPT
exec ofcs.....937-9750
+*RAILROAD CROSSES*
2711 Hecht Jack P [7] ♠
LEARNER CO scrap waste
mtrls 948-3498
2941 S T SERVICES petro blk stns
tmn.....943-5662
2947 KINDER MORGAN ENERGY
PARTNERS frgt trans arngmnt
.....465-7369
3003 TESORO MARINE SERVICES
.....466-8800
TESORO REFINING
MARKETING & SUP
genl wrhsg 466-8800
3015 BULK PETROLEUM
TERMINAL petro blk stns tmn
.....462-3848
3019 HYDRO AGRI NORTH
AMERICA farm supplies
.....466-0942
+*W WASHINGTON ST ENDS*
+*N HOOPER ST INTERSECTS*
+*RAILROAD CROSSES*
· ZIP CODE 95203 CAR-RT C013
3515 RAMOS OIL CO petroleum
prdts.....465-6255
SHELL OIL PRODUCTS gas
stations 466-6941
BUSINESSES 34 HOUSEHOLDS 9

NELLIS ST (STOCKTON)-FROM 912 WATERLOO RD EAST
· ZIP CODE 95205 CAR-RT C014
1538 MARTIN'S AUTO BODY pnt &
body rpr 948-2759
A MALDONADOS CUSTOM
BODY & PAINT pnt &
body rpr 937-9501
BUSINESSES 2

NELSON RD (STOCKTON)-
· ZIP CODE 95215 CAR-RT R004
7240 Goodrich Larry R [9]+ ♠
.....942-2263
GOODRICH SANDRA horses
othr equine 942-2263
7250(M)Araya Eduardo F ♠
Araya Mariette P
C I B CONSULTING cstm
cmptr prgmg sv 461-6114
7271 Smith Jean [9]+ ♠
7273(M)Navone Connie S
7587 Not Verified
7588 Andrade Manuel B Jr [9]+ ♠
.....948-2476
7857 Brinlee Traci A [2] ♠.948-9415
Brinlee Lisa 948-9415
7971(M)Kinnick Frederick J ♠
.....943-2218
Kinnick Patsy J.....943-2218
8003(M)Gapasin Nico A
8099 Lancaster Jim D Sr [9]+ ♠
8121 Vanvuren Ted & Patti [5] ♠
.....462-6777
8220 Newhall William S [9]+ ♠
Newhall Cathy L
+*E GAWNE RD INTERSECTS*
BUSINESSES 2 HOUSEHOLDS 12

NEMAHA WAY (STOCKTON)-FROM 4135 LOGAN LN
· ZIP CODE 95206 CAR-RT C003
2615 Not Verified

NEMAHA WAY
2616 Moss William E Jr [5] ♠
.....547-9353
2629 Kamper George E [5] ♠
Kamper Anne R
2630 Richards Jim A [9]+ ♠
Richards Vicki S
TEC TOTAL ELECTRIC
CONSTRUCTN elec work
.....463-9616
2643 Jackson Frances R [6]
2644 Armenta Ingeborg E [5] ♠
Armenta Michael E
2657 Begley Jerry A [5] ♠
Begley Elaine
2658 Dasilva Silvino E [2] ♠
Dasilva Delia M
2673 Garcia Jose M [9]+ ♠
Garcia Magda C
2674 Huffman Barry S [5] ♠
Huffman Robin M
2687 Garibay Alfonso [5] ♠
Garibay Maria G
2688 Arroyo Francisco L [5]941-9379
2695 Gentry Consuella E [9]+ ♠
2696 Revel Wayne A & Theresa [8]
♠
2710 Boateng Sampson A [6] ♠
.....941-2881
2711 Chandler Sherrie N [9]+ ♠
Chandler Norma L
2720 Vu Ha M [5] ♠ 939-1140
2721 Rodgers Edward G & Diane
[5] ♠
2(M)Bickell Carol D
2727 Serna Tony Jr [7] ♠
2728 Verdeflor Cesar D [5] ♠
Verdeflor Myriam C
2734 Robinson Reannie A [6] ♠
2735 Aranda Evangelina [7] ♠
Aranda Vincente
2742 Mosher Charles E [7] ♠
Mosher Enedina D
2743 Garcia Peter [5] ♠
Garcia Rebecca L
2750 Arriola Vernon V [2] ♠
.....469-2468
Arriola Novelita A.....469-2468
2751 Rocha Milton J [9]+ ♠
Rocha Maria
2758 Morse Leith T [6] ♠
Morse Wendy L
2759 Wheelock Eric L [4] ♠
.....467-7716
2809 Rice Randall B Sr [6] ♠
Rice Kathleen A
2817 Thao Xao [2] ♠ 460-1146
+*PAPILLION WAY BEGINS*
2825(M)Jutras Steven L ♠
2833 Just Richard A [6] ♠
2841 Keech Penni L [8] ♠
+*KIMBALL LN INTERSECTS*
BUSINESSES 1 HOUSEHOLDS 34

S NETHERTON AVE (STOCKTON)-FROM 3402 E MARSH ST SOUTH
· ZIP CODE 95205 CAR-RT C032
416 Hunt James [9]+ ♠.....464-7888
Hunt Jessie R.....464-7888
432 Liggins James H [9]+ ♠
.....465-6060
437 Archibeque Macario [9]+ ♠
Archibeque Lucille
445 Gomez Jose I & Yolanda [9]+
448 Alexander Monnie M [9]+ ♠
Alexander William F
506(M)Salazar Maria.....464-2312
507 Hernandez Gerardo [8] ♠
508 Rimes Joel L & Anita [9]+ ♠
519 Trujillo Mae [9]+ ♠
Trujillo Alta M
531 Lindsay Gary E [9]+ ♠
Lindsay Suzanne L
532(M)Rodriguez Martina 941-9660
603 Brown Willie G [9]+ ♠..943-6452
Brown Gwendolyn J...943-6452
604 Meintasis Ishmael D Jr [9]+ ♠
Meintasis Lupe T
615 Lujan Teofila C [9]+ ♠.463-3391
Lujan Robert D.....463-3391
627 Armendariz Felix & Gloria [9]+
♠
641 Not Verified
701(M)Moran Jennie 464-1938
(M)Moran Manuel.....464-1938
704 Felix Leonora N [9]+ ♠
710 Meraz Henry [9]+ ♠
Meraz Elizabeth M
717 Ochoa Tomas [9]+ ♠
724 Horton Hazel C [9]+ ♠
Horton Ronnie L
738 Sanchez Martin A [6] ♠
Sanchez Francina A
748 Tewksbury Marlo J [5]
752 Williams Byron D Jr [9]+ ♠
.....465-1909
762 Not Verified
+*E MAIN ST INTERSECTS*
836 Not Verified
+*E ANDERSON ST ENDS*
907 Presley Franklin W [9]+ ♠
.....464-0479
924 May Robert B [8] ♠
925 Wade Katherine J [9]+
Wade Kenneth E
926 Starr John G & Edna [9]+ ♠
.....465-0511
928 May Jessie [9]+ ♠
938 Lopez Pedro G [2]
Lopez Guadlupe B
944 Not Verified
945 Rillon Ruben J Jr [9]+ ♠
Rillon Kristine M
946 Cortez Angela [9]+ ♠
954(M)Silva Anthony.....943-2181
1004 Didio Pamela A [5] ♠
Didio David A
1005 Marin Arturo B [9]+ ♠
1010 Shotwell Ida J [9]+ ♠.463-6523
Shotwell Doris L.....463-6523

Details For:	Year	Source	TP	Adjoining
NAVY DR	1999	R. L. Polk Co., Publishers	-	X

APPENDIX “C”: SUBJECT PROPERTY PHOTO LOG

Photo 1. View of train track surrounding proposed Targa Terminal Site. Photo taken from entrance road. Site shown to the left.

Photo 2. Visual of the site which is represented by the vacant lot. The buildings and structures to the right demonstrate the west end of Pacific Ethanol's plant.

Photo 3. Site Photo from southeastern view. Pacific Ethanol plant in background. Demonstrates slop of subject property into surrounding ditch.

Photo 4. Site view from north. Pacific Ethanol plant in background. Demonstrates condition of subject property and limited vegetative growth.

Photo 5. Site view from north. Pacific Ethanol plant in background. Demonstrates condition of subject property and limited vegetative growth.

Photo 6. Site view from north demonstrates overhead power line and vegetation.

Photo 7. Demonstrates vegetation, above ground sewer, and overhead power lines.

Photo 8. Demonstrates the slight elevation change from the north of the subject property.

Photo 9. Demonstrates the subject property from the north. Additionally, demonstrates two underground lines (cement boxes slightly below grade level in forefront of photo).

Photo 10. Photo from north of subject property. Demonstrates Pacific Ethanol property in background of picture.

Photo 11. Subject property photo. Demonstrates potential utility line(marked by pole with orange tip in forefront of photo).

Photo 12. Southeastern corner of subject property. Depicts the ditch surrounding the property and the Pacific Ethanol plant.

Photo 13. Photo from east end of property. Looking away from property, demonstrates distance to Waste Water Treatment Plant.

Photo 14. Additional photo from east end of property which demonstrates distance to Waste Water Treatment Plant.

Photo 15. Photo of San Joaquin River nearby the subject property.

Photo 16. Photo from south east of property, looking northward towards NuStar property.

Photo 17. Photo from south east of property, looking northward towards NuStar property.

Photo 18. Photo upon exit of subject property location.

Photo 19. Photo of nearby terminal upon exit of subject property.

APPENDIX "D": INTERVIEW DOCUMENTATION

ALL APPROPRIATE INQUIRY INTERVIEWS
(PAUL KOEHLER AND STEVE ESCOBAR)

Proposed Targa Terminal Facility
Port of Stockton
Navy Drive
Stockton, CA 95206

Name:	**Paul Koehler**
Employer:	Pacific Ethanol
Position Held:	Vice President
Contact Information:	paulk@pacificethanol.net (916)403-2123
Personal Interview (date/time):	November 7, 2011 11:45 AM

Introduction and purpose of inquiry.

Q: Are you familiar with the location known as
A: Yes.

Q: Do you know if there has ever been any hazardous spill within the subject area?
A: I am not familiar with any such occurrence.

Name:	**Steve Escobar**
Employer:	Port of Stockton
Position Held:	Deputy Port Director, Real Estate and Development
Contact Information:	sescobar@stocktonport.com (209)946-0246
Personal Interview	November 7, 2011 11:15 AM

Introduction and purpose of inquiry.

Q: Are you familiar with the location known as
A: Yes.

Q: Do you know if there has ever been any hazardous spill within the subject area?
A: I am not familiar with any such occurrence.

Proposed Targa Terminal Facility
Port of Stockton
Navy Drive
Stockton, CA 95206

Phase I Questionnaire
Project Manager, Brent Moore
Mr. Paul Koehler, Vice President, Pacific Ethanol
Personal Interview November 7, 2011 11:45 AM

The following questionnaire is required by the new ASTM Standard E-1527-05, which adheres to the new All Appropriate Inquiries Rule, written into law on November 1, 2005 by the United States Environmental Protection Agency.

If you answer yes to any of the questions, and need additional space to explain, please use additional paper and reference the question number.

(1.) Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25)

Are you aware of any environmental cleanup liens against the Property that are filed or recorded under federal, tribal. State or local law?
None that I am aware of.

(2.) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26)

Are you aware of any activity and land use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the Property and/or have been filed or recorded in a registry under federal, tribal, state or local law?
No.

(3.) Specialized Knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28)

As the user of this Phase I Environmental Site Assessment ESA do you have any specialized knowledge or experience related to the Property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the Property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?
No.

(4.) Relationship of the purchase price to the fair market value of the Property if it were not contaminated (40 CFR 312.29)

Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the Property?
The lease price reflects fair market value. No such contamination exists; therefore, there is no reason to lower the price.

(5.) Commonly known or reasonably ascertainable information about the Property (40 CFR 312.20)

Are you aware of commonly known or reasonably ascertainable information about the Property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,

(a) Do you know the past uses of the Property?
None.

(b) Do you know of specific chemicals that are present or once were present at the Property?
None.

(c) Do you know of spills or other chemical releases that have taken place at the Property?
None.

(d) Do you have any prior knowledge that the property was developed with a gas station, dry cleaner, machine shop or industrial facility in the past?
None.

(e) Have you been informed of the past existence or hazardous substances or petroleum products with respect to the property or any facility located on the Property?
None.

(f) Do you know if one or more underground storage tanks (USTs) or septic tanks were previously located at the property?
No.

(g) Do you know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?
None.

(h) Do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned on the Property?
None.

(i) What year was the Property building was constructed (if developed)?
Not Applicable.

(j) Do you know of any environmental cleanups that have taken place at the Property?

(6.) The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the user of the ESA, based on your knowledge and experience related to the property, are there any indicators that point to the presence or likely presence of contamination at the property?
None.

(7.) For what purpose is this Phase I Environmental Site Assessment being conducted, i.e. real estate transaction, lender requirement, etc.?
(sub)Lease of Property.

(8.) Who is the current owner of the Property and how long has he/she owned the Property?
Port of Stockton District. Nearly 20 years.

(9.) Do you have a Title Search for the Property? If not, would you like us to order one? This is not within the ASTM standard scope. However, we are required to ask the Client this question, even though it is an additional scope, not included in the ASTM standard. The approximate cost for a Title Search with analysis and incorporation into the report is $500.
None.

Proposed Targa Terminal Facility
Port of Stockton
Navy Drive
Stockton, CA 95206

Mr. Steve Escobar's response to additional Questions (personal interview 11:45 AM November 7, 2011):

Could you provide any information on the following regarding the subject property:

Environmental site assessment or audit reports?
None.

Environmental permits or hazardous waste generator notices/reports. Registrations for aboveground and underground storage tanks?
No.

Septic systems, oil wells, or water wells?
None.

Material safety data sheets; community right to know plans; or safety, preparedness and prevention plans; spill protection countermeasures and control plans?
None.

Reports regarding Hydrologic conditions on the subject property or surrounding area. Notices or Other Correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property?
None.

Hazardous waste generator reports?
None.

Geotechnical Studies?
None.

Proceedings regarding hazardous substances and petroleum products including any pending, threatened or past: litigation; administrative proceedings; or notices from any governmental entity regarding possible violations of environmental laws or other possible liabilities related to hazardous substances or petroleum products?
None.

APPENDIX "E": FIELD NOTES

TARGA PORT OF STOCKTON TERMINAL SITE DATA SHEET

Visual Observation By: Pete Serrano

Date: 11/2/2011

APN # 145-020-08

Photo Numbers: 20

Street Address: 3028 Navy Dr. Stockton, CA. 95206

Adjoining Properties / Adjoining Land Uses:

South – Pacific Ethanol – immediately South. shares property

Southeast – Stockton Waste Water Treatment Plant (¼ mile)

East – NuStar Terminal was visible (at a distance ½ mile)

North / west / south – San Joaquin River

North east – ~~[illegible]~~ Upon exiting the facility + driving back several hundred yards along Navy Dr., are ~~[illegible]~~ several industrial sites (Shell, NuStar, etc.).

Detection Of:

- ☐ Odors
- ☐ Metallic or Plastic Drums
- ☐ Electric Generators
- ☐ Transformers
- ☐ Evidence of PCBs
- ☐ Anything labeled hazardous substances
- ☐ Stained flooring, drains, or walls caused by something other than water
- ☐ Building Types:_____
- ☐ Storage Areas
- ☐ Foundations (Former Building Site)
- ☐ Stressed Vegetation
- ☐ Pooled Liquids
- ☐ Roads
- ☐ Heat Transfer Systems
- ☐ Resource Extraction
- ☐ Chemical Storage
- ☐ Surface Water
- ☐ Water Wells
- ☐ Septic Systems
- ☐ Underground storage tanks
- ☐ Location of drain/sumps
- ☐ Areas of obviously stained soil, etc.
- ☐ Filling or grading suggesting trash disposal
- ☐ Water discharge into ditch or stream on adjacent property
- ☐ Lead based paint
- ☐ Above ground storage tank
- ☐ Waste Disposal from Operations
- ☐ Fuel Dispensing
- ☐ Industrial Activities; Types: _____

Notes on Above: Subject property is a Vacant lot. Remains Unimproved

Exterior Observations:

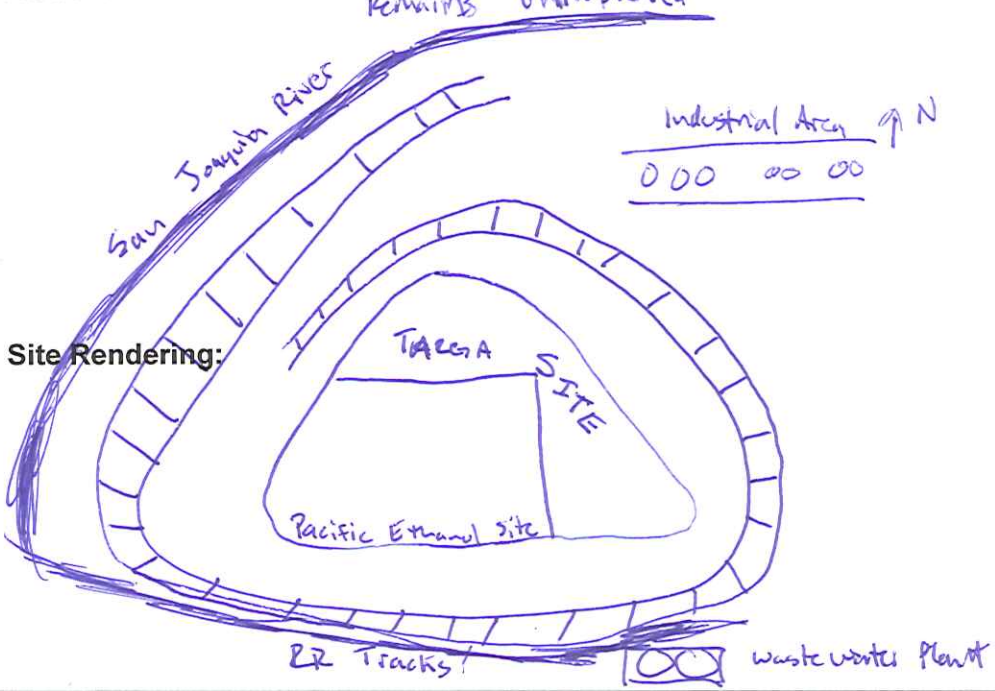
Site had: Limited Vegetation growth

- No construction
- Noted Sewer gate Above ground
- Didn't note stains / discoloration in Dirt
- No evident signs of Pollution / Containers

Interior Observations / Activities:

N/A – Subject property is a Vacant lot.

Site Rendering:



APPENDIX “F”: 2006 PHASE I REPORT

BSK Associates

An Employee Owned Company

September 27, 2006 BSK E06.041.01F

Mr. Tom Koehler, Vice President
Pacific Ethanol
516 Southwest Morrison, Suite 820
Portland, Oregon 97214

SUBJECT: Phase I ESA Report
99-Acre Property
Navy Drive at Washington Street
Stockton, California

Dear Mr. Koehler:

BSK Associates has prepared this Phase I Environmental Site Assessment (ESA) Report for the 99-Acre Property. This report presents the findings, summaries, and recommendations associated with the Phase I ESA.

BSK appreciates the opportunity to be of service to Pacific Ethanol. If you have questions or require additional services please call the undersigned at (559) 497-2880.

Sincerely,
BSK ASSOCIATES

C. Michael McKenzie, P.G.
Project Geologist

CMM/td

Distribution: Mr. Tom Koehler, Pacific Ethanol (4 originals)
BSK (1 original, E-copy)

Analytical Testing

Construction Materials Testing & Special Inspection

Drilling Services

Environmental Services

Food Laboratory

Geotechnical Engineering

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BSK

PHASE I
ENVIRONMENTAL SITE ASSESSMENT REPORT

99-Acre Property
Navy Drive at Washington Street
Stockton, California

BSK E06.041.01F

Prepared for:

Mr. Tom Koehler
Pacific Ethanol
516 Southwest Morrison, Suite 820
Portland, California 97214

September 27, 2006

Engineers, Geologists, Environmental Scientists

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1
1.0 INTRODUCTION 2
2.0 PURPOSE 2
2.1 Scope of Services 3
2.2 Significant Assumptions 3
2.3 Limitations and Exceptions to Assessment 4
2.4 Special Terms and Conditions 4
2.4.1 Authorization 4
2.4.2 Property Access 4
2.5 User Reliance 4
3.0 PROPERTY DESCRIPTION AND PHYSICAL SETTING 5
3.1 Property Location 5
3.2 Property Vicinity Characteristics 5
3.3 Description of Property and Improvements 5
3.4 Utilities 5
3.5 Current Use of Adjacent Properties 5
3.6 Physical Setting 6
3.6.1 Geology 6
3.6.2 Hydrogeology 6
4.0 USER PROVIDED INFORMATION 6
4.1 Copies of Title Records 6
4.1.1 Environmental Liens or Activity and Use Limitations 6
4.2 Specialized Knowledge 7
4.3 Commonly Known or Reasonably Ascertainable Information 7
4.4 Valuation Reduction for Environmental Issues 7
4.5 Owner, Property Manager, and Occupant Information 7
4.7 Other 7
5.0 SUMMARY OF REGULATORY AGENCIES RECORDS REVIEW 7
5.1 Summary of Federal and State Regulatory Records 7
6.0 RECORDS REVIEW 14
6.1 Review of Historical Sanborn Fire Insurance Maps 14
6.2 Review of Historical Topographic Maps 14
6.3 Review of Historical Aerial Photographs 15
6.4 Review of Historical Haines Criss-Cross and Polk Guide Directories 17
6.5 Review of Development Department Records 17
7.0 SITE RECONNAISANCE OBSERVATIONS AND INTERVIEW 18
7.1 Methodology and Limiting Conditions 18
7.2 Adjacent Properties 20
8.0 INTERVIEWS 21
9.0 SUMMARY OF FINDINGS 21
10.0 CONCLUSIONS AND RECOMMENDATIONS 24
11.0 LIMITATIONS 24
12.0 REFERENCES 26
13.0 QUALIFICATIONS 27

FIGURES

Figure 1 Vicinity Map
Figure 2 Site Plan

APPENDICES

Appendix A Site Photographs
Appendix B Sanborn Map Report and EDR Radius Map Report
Appendix C Regulatory Records Documentation
Appendix D All Appropriate Inquiry Questionnaire and Interview Documentation
Appendix E Copy of ERS Dredge Sediment Sampling Report

EXECUTIVE SUMMARY

BSK has preformed a Phase I ESA Site Assessment in accordance with the scope and limitations of ASTM Practice E 1527-05 of the 99-acre property at the intersection of Navy Drive at Washington Street at the Port of Stockton, San Joaquin County, California (Figure 1). The exceptions to or deletions from, this practice are described in Section 3.3 of this report. This assessment has revealed evidence of recognized environmental conditions in connection with the property

The subject site consists of 99-acres of undeveloped land along the San Joaquin River. Historically, the southern portion of the site was used for agricultural purposes with a possible residence, while the northern portion of the site remained undeveloped. Between 1937 and 1952, use of the property changed and deep water dredge sediments from the San Joaquin River were deposited on-site. Since the beginning of this program, the topographic elevation has been artificially increased between five and ten feet across the site.

The San Joaquin River borders the site to the northwest, west, and southwest. Beyond the San Joaquin River to the northwest is the former Rough and Ready Island (RRI) Naval Base and to the southwest is the City of Stockton Waste Water Treatment Plant. North of the site is the Stockton Police Department Gun and Pistol Range and to the south is a storm-water retention pond. The Stockton Terminal, a bulk-gasoline facility, operated by several oil companies, borders the site to the east.

The dredge sediments and native soil beneath the deposits have been sampled by Environmental Risk Services (ERS) for the Port of Stockton in conjunction with another project on the neighboring RRI. Soil samples were collected from the dredge sediments and from the underlying native soil on site as part of the investigation. The results of the soil sampling indicate that metal concentrations in the dredge sediments are below the screening levels established in the California Human Health Screening Levels. According to Mr. Steve Michelson of ERS, the findings of their investigation indicated that the dredge sediments do not pose a "significant threat" to groundwater.

The Stockton Terminal, adjacent to the east of the site is the focus of several ongoing passive remediation projects from leaking gasoline and diesel fuel into the substrate. The predominant groundwater flow direction appears to be to the southeast (away from the site) based on reports issued by the consultants for the Stockton Terminal. However, on-site monitoring well PS/P-21, was reported in February 2006 with a total petroleum hydrocarbon referenced as diesel (TPHd) concentration of 330 micrograms per liter (µg/l) or parts per billion (ppb). In addition, on-site monitoring well, PS/P-21 has been reported in the past with MTBE concentrations ranging from 0.6 µg/l to a high of 1.4 µg/l in 1999 (Figure 2). In comparison, the Maximum Contaminant Limit (MCL) for MTBE is 5 ppb. Therefore, it appears that the groundwater beneath the site may be impacted by petroleum hydrocarbons originating from the Stockton Terminal facility and represents a recognized environmental condition to the site. However, the concentrations of petroleum hydrocarbons observed in the monitoring wells are low and groundwater flow is to the south-southeast, away from the site.

PHASE I ESA REPORT
99-ACRE PROPERTY
NAVY DRIVE AT WASHINGTON STREET
STOCKTON, CALIFORNIA

1.0 INTRODUCTION

BSK Associates has conducted a Phase I Environmental Site Assessment (ESA) of the 99-Acre Property located at Navy Drive and Washington Street in Stockton, California (Site). The ESA was initiated per the authorization of Mr. Tom Koehler, of Pacific Ethanol, Portland, Oregon. BSK conducted the Phase I ESA of the Site in general adherence to the standards set by the American Society for Testing and Materials (ASTM) E 1527-05 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.*

This report presents the findings of the ESA. This report includes a Vicinity Map (Figure 1) and a Site Map (Figure 2). Site photographs are included in Appendix A. The Sanborn Map Report and Environmental Data Resources (EDR) Radius Map Report are included in Appendix B. Regulatory record information is included in Appendix C. Interview and questionnaire documentation are included in Appendix D. A copy of the ERS dredge sediment sampling report is included in Appendix E.

2.0 PURPOSE

A Phase I ESA is designed to identify the presence of recognized environmental conditions (RECs) or the presence or likely presence of hazardous substances or petroleum products on the Site (or adjacent properties) under conditions that indicate an existing release, a past release, or a material threat of a release of the substance/product into structures, the ground, groundwater, or surface water of the Site. This ESA includes all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial practices. An additional use of the Phase I ESA is to permit the user to satisfy one of the requirements to qualify for what is commonly known as the "innocent landowner" defense to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability as described by 42 U.S.C. Section 9601 (35)(B). BSK will determine the applicability of the following terms in connection with the Site:

ASTM E 1527-05 Section 3.3.52 *Material Threat* – A physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the *environmental professional,* is threatening and might result in impact to public health or the environment.

ASTM E 1527-05 Section 3.3.74 *Recognized Environmental Conditions* (REC)–The term *recognized environmental conditions* means the presence or likely presence of any *hazardous substances* or *petroleum products* on a *property* under conditions that indicate an existing release, a past release, or a material threat of a release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, groundwater, or surface water on the *property*. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the

subject of an enforcement action if brought to the attention of appropriate government agencies. Conditions determined to be *de minimis* are not *recognized environmental conditions.*

2.1 Scope of Services

The scope of services for this Phase I ESA generally conforms to ASTM E 1527-05 and included the following:

- A site reconnaissance of the Site and adjacent properties preformed by an environmental professional.
- Observed and documented existing land use and general environmental condition of the Site and immediately adjacent properties as it relates to ASTM standards. Documentation of existing uses was provided in color photographs, which are included in Appendix A.
- Provided a questionnaire conforming to the *All Appropriate Inquiry* standards to the client to review and answer.
- Interviewed persons knowledgeable of the former and current use of the Site and immediately adjacent properties.
- Researched and reviewed publicly available and reasonably ascertainable federal, state, and local regulatory agency files to identify known historic releases or uses of petroleum products and/or hazardous materials on the Site and immediately adjacent properties.
- Researched and reviewed historical information pertaining to the Site including information from publicly available and reasonably ascertainable historical aerial photographs, topographic maps, Sanborn fire insurance maps, street directories, and building department records.
- Prepared this report presenting findings, summaries and recommendations.

2.2 Significant Assumptions

Non-scope issues are those conditions and concerns that are beyond the scope of services of this ESA and include asbestos containing materials, radon, lead-based paint, lead in drinking water, wetlands delineation or identification, regulatory compliance, cultural concerns, industrial hygiene, ecological resources, endangered species, indoor air quality, and high voltage power lines. Sampling and analytical testing of soil, groundwater, air, radon gas, radioactive materials, urea-formaldehyde, mold, pesticides or polychlorinated biphenyls (PCBs) are also considered non-scope issues.

2.3 Limitations and Exceptions to Assessment

Along with all of the limitations set forth in various sections of the ASTM Standard E 1527-05 protocol, the accuracy and completeness of this report is necessarily limited by the following:

- Access Limitations – none
- Physical Obstructions to Observations – Central portion of site nearly inaccessible due to hilly topography and dense vegetation.
- Outstanding Information Requests – 50-year Chain of Title report
- Historical Data Source Failure – Earliest available history of the site from a 1913 topographic map shows a building on-site, which was confirmed on the 1937 aerial photograph. There is no historical data for the site prior to the 1913 topographic map.
- Data Gaps – None
- Other – None

2.4 Special Terms and Conditions

2.4.1 Authorization

Authorization to perform this assessment was transmitted by email on April 27, 2006. BSK Proposal No. EF06.0064, dated May 16, 2006, was submitted to Pacific Ethanol for review and approval.

2.4.2 Property Access

Instructions as to the location of the property, access, and an explanation of the property and facilities to be assessed were provided by Ms. Kimberly Mah, Assistant Property Manager, for the Port of Stockton.

2.5 User Reliance

This report was prepared pursuant to the contract BSK has with Pacific Ethanol. That contractual relationship included an exchange of information about the property that was unique and between BSK and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between BSK and its client, reliance or any use of this report by anyone other than Pacific Ethanol, for whom it was prepared, is prohibited and therefore not foreseeable to BSK.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third party beneficiary to BSK's contract with Pacific Ethanol. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

Third party reliance letters may be issued on request and upon payment of the current fee for such letters. All third parties relying on BSK's reports, by such reliance, agree to be bound by the proposal and BSK's *General Conditions for Environmental Consulting Services*. No reliance by any party is permitted without such agreement, regardless of the content of the reliance letter itself.

3.0 PROPERTY DESCRIPTION AND PHYSICAL SETTING

The site location and attributes have been obtained from a variety of sources including: The Port of Stockton and the U.S. Geological Survey, 7.5 minute topographic maps. General property information and property use are summarized below.

3.1 Property Location

The property is commonly referred to as the "99-Acre Property" by Port of Stockton personnel. The site is located along the San Joaquin River on the western boundary of the Port of Stockton. The site can also be referenced as being located in Section 8 of Township 1 north, Range 6 East on the Stockton West U.S.G.S. Topographic Map, dated 1968 and photo-revised in 1987. The site has an approximate elevation of 10 feet above sea level.

3.2 Property Vicinity Characteristics

The property is located in a predominantly industrial setting. A vicinity map for the site is included as Figure 1.

3.3 Description of Property and Improvements

The property encompasses 99-acres and is listed in the San Joaquin County book of plats as APN# 145-020-08. According to Ms. Kimberly Mah, the property is zoned for IP, Industrial Port. The site consists of 99-acres of vacant, undeveloped land formerly used as a disposal location for dredge deposits from the San Joaquin River.

3.4 Utilities

Utility systems identified at the property, as specified in ASTM Standard E 1527-05 § 9.4.19 and § 9.4.1.10 are as follows:

- Sewage disposal: None
- Potable water: None
- Solid Waste Disposal Services: None
- Electricity Provider, Transformers: No electricity provider. Two sets of pole-mounted transformers were observed during the site reconnaissance along the eastern property boundary. The transformers appear to service the Stockton Terminal and adjacent properties. No evidence of leakage or staining were observed on the underside of steel transformer housings.

3.5 Current Use of Adjacent Properties

Based on observations by BSK during the Site and vicinity reconnaissance, the following summarize the current use of properties immediately adjacent to the Site:

ADJACENT STREETS AND PROPERTY USE

Direction	Adjacent Street	Adjacent Property Use
North	None	Stockton Police Department Pistol Range to the northeast and Rough and Ready Island to the northwest beyond the San Joaquin River.
South	None	City of Stockton Storm-water retention basin to the southeast and the City of Stockton Waste Water

		Treatment Plant to the southwest beyond the San Joaquin River.
East	Navy Drive	Stockton Terminal, bulk gasoline facility
West	None	Rough and Ready Island, beyond the San Joaquin River.

3.6 Physical Setting

3.6.1 Geology

The Site is located in the Great Valley Geomorphic Complex, near the San Joaquin-Sacramento Delta. The Great Valley is a broad structural trough bound by the Sierra Nevada and Coast Ranges of California to the east and west which slope to its greatest depth near the western margin of the valley. The Great Valley can be further divided between the San Joaquin Valley to the South and the Sacramento Valley to the north, with the San Joaquin-Sacramento Delta as the dividing point between the two regions. The Great Valley has been filled with several thousand feet of sedimentary deposits from the Sierra Nevada. Sediments in the valley consist of sands with lesser silts, minor clays, and gravel by major to minor west-flowing drainages and their tributaries. The sedimentary deposits in the region form large coalescing alluvial fans with gradual slopes.

3.6.2 Hydrogeology

General movement of groundwater within the Great Valley is from the flanks of the valley to the median of the trough on the western side of the valley and subsequently toward the San Joaquin-Sacramento Delta area. The Great Valley is an area of substantial groundwater withdrawal and recharge due to municipal, industrial, and agricultural use. Based on groundwater information from the file review of an adjacent site, the depth to shallow groundwater beneath the site is approximately 10 feet below ground surface with a gradient to the southeast. The foregoing information regarding hydrogeologic conditions associated with the Site and vicinity is generalized, and additional information regarding local and regional hydrogeologic conditions could be obtained by further investigation.

4.0 USER PROVIDED INFORMATION

The user provided information was obtained by the questionnaire provided to Pacific Ethanol by BSK with our proposal dated May 16, 2006. The information provided by the user to BSK is described below. A copy of the questionnaire is provided in Appendix D.

4.1 Copies of Title Records

A 50 year chain-of-title report has not been provided to BSK by Pacific Ethanol by the date of this report.

4.1.1 Environmental Liens or Activity and Use Limitations

Pacific Ethanol is unaware of any environmental liens or activity and use limitations which have been placed against the property.

4.2 Specialized Knowledge

Pacific Ethanol does not have any specialized knowledge about the property since the site has been previously undeveloped.

4.3 Commonly Known or Reasonably Ascertainable Information

Pacific Ethanol does not have any commonly know or reasonably ascertainable information about the property, regarding the site history and past usage, or past environmental assessments or clean ups.

4.4 Valuation Reduction for Environmental Issues

Pacific Ethanol is proposing to lease the property from the Port of Stockton and is unaware of any outstanding potential issues which could affect the value of the property.

4.5 Owner, Property Manager, and Occupant Information

The property owner of record is the Port of Stockton, and the current manager of the property is Mrs. Kimberly Mah. At this time, the site is vacant and undeveloped.

4.6 Reason for Performing the Phase I Environmental Site Assessment

The Phase I ESA was conducted for the potential lessee of the property for the purpose of developing the property for industrial purposes.

4.7 Other

No other conditions were noted on the property

5.0 SUMMARY OF REGULATORY AGENCIES RECORDS REVIEW

A review of local regulatory agency records was conducted to determine if petroleum products or hazardous materials have been handled, stored, or disposed of on the Site and/or the adjacent properties. The following agencies were contacted to obtain any available information pertaining to the Site and or adjacent properties; Environmental Data Resources, Inc. (EDR), the San Joaquin County Environmental Health Department, California Environmental Protection Agency Department of Toxic Substance Control (DTSC), and Central Valley Regional Water Quality Control Board (RWQCB).

5.1 Summary of Federal and State Regulatory Records

BSK retained EDR to conduct an environmental record search of federal and state regulatory agency databases. The record search meets the government records search requirements of ASTM E 1527-05. EDR's findings are documented in *The EDR-Radius Map* report (EDR Report) dated May 4, 2006 included in Appendix B. The names and addresses of sites identified in a database are listed if the site is within approximately 0.25 miles of the Site. Due to the size of the property, the database search was extended an additional 0.25 mile. Findings of the federal, state, and local regulatory agency records search/review reported by EDR are summarized below.

EDR RADIUS MAP SUMMARY						
Database	**Information Available**	**Search Distance from the Site (Miles)**				
Federal ASTM Standard:		**Site**	**<⅛**	**⅛-¼**	**¼-½**	**½-1**
NPL	Sites for priority cleanup (Superfund)	0	0	0	0	0
Proposed NPL	Proposed NPL cleanup sites	0	0	0	0	0
Delisted NPL	Sites removed from the NPL	0	0	0	0	0
NPL Recovery	Federal Superfund Liens	0	---	---	---	---
CERCLIS	Potentially hazardous waste sites for possible inclusion on the NPL	0	0	0	0	**1**
CERC/NFRAP	Sites designated as No Further Action and removed from the CERCLIS	0	0	0	0	---
CORRACTS	Hazardous waste handler with corrective action activity	0	0	0	0	0
RCRA-TSD	Hazardous waste treatment, storage and disposal facility	0	0	0	0	---
RCRA Lg. Quan. Gen.	Large generators of hazardous waste	0	0	0	**3**	**1**
RCRA Sm. Quan. Gen.	Small generators of hazardous waste	0	0	**1**	**6**	**3**
ERNS	Unauthorized release of hazardous substances	0	0	0	**18**	---
HMIRS	Hazardous material spill incidents	0	---	---	---	---
US ENG CONTROLS	Engineering Control Sites List	0	0	0	0	---
US INST CONTROLS	Site with Institutional Controls	0	0	0	0	---
DOD	U.S Department of Defense sites >640 acres	0	0	**1**	0	0
FUDS	Formerly Used Defense Sites	0	0	0	0	0
US BROWN-FIELDS	A Listing Brownfields Sites	0	0	0	0	---
CONSENT	Sites with legal settlements associated with NPL sites	0	0	0	0	0
ROD	Records of Decision associated with NPL sites	0	0	0	0	0
UMTRA	Uranium Mill Tailing Sites	0	0	0	0	---
ODI	Open Dump Inventory	0	0	0	0	
TRIS	Release and/or treatment of toxic chemicals	0	0	0	**1**	---
TSCA	Identifies manufacturers and importers of chemical substances	0	---	---	---	---
FTTS	Tracking system of pesticide enforcement actions and compliance activities	0	---	---	---	---
SSTS	Identified pesticides producing sites	0	0	0	**2**	---
ICIS	Integrated Compliance Information Systems	0	---	---	---	---
PADS	Generators, transporters, commercial storers and/or brokers and disposers of PCBs	0	---	---	---	---
MLTS	Sites which possess or use radioactive materials	0	---	---	---	---
MINES	Sites regulated by the U.S. Dept. of Labor, Mine Safety and Health Administration	0	0	0	---	---
FINDS	Regulated facilities potentially listed in other databases	0	0	**1**	**11**	---
RAATS	Records of enforcement actions issued to major violators	0	---	---	---	---

EDR RADIUS MAP SUMMARY						
State and Local ASTM Standard:		**Site**	**<⅛**	**⅛-¼**	**¼-½**	**½-1**
AWP	Hazardous waste sites targeted for cleanup	0	0	0	0	**1**
Cal-Sites	Potential hazardous waste sites	0	0	0	0	**1**
CA Bond Exp Plan	Sites targeted for hazardous substances cleanup	0	0	0	0	0
NFA	Evaluated sites with no further action needed	0	0	0	---	---
NFE	Unconfirmed contamination sites that require evaluation	0	0	0	---	---
REF	Unconfirmed contaminated sites	0	0	0	**1**	---
SCH	School sites being evaluated for hazardous substance contamination	0	0	0	---	---
Toxic Pits	Potential hazardous substances sites	0	0	0	0	---
SWF/LF (SWIS)	Active, inactive and closed solid waste disposal sites or transfer facilities	0	0	0	**1**	---
CA WDS	Sites issued waste discharge requirements	0	0	0	**5**	---
WMUDS/ SWAT	Tracking and inventory of waste management units	0	0	0	**1**	**1**
Cortese	Potential and confirmed hazardous waste & substances sites	0	0	0	**3**	**17**
SWRCY	Recycler Database	0	0	0	0	---
LUST	Leaking underground storage tanks sites	0	0	0	**1**	**18**
CA FID UST	Active and inactive UST locations	0	0	0	**6**	**4**
CA SLIC	Sites with non-UST spills, leaks, investigations and cleanups	0	0	0	**11**	**10**
UST	Registered underground storage tank sites	0	0	**2**	**12**	**4**
HIST UST	Historical list of UST sites	0	0	0	**8**	**3**
AST	Registered aboveground storage tank sites	0	0	0	**3**	**3**
SWEEPS UST	Sweeps UST Listing	0	0	0	**8**	**4**
CHMIRS	Hazardous material releases or spills sites	0	0	0	**7**	---
Notify 65	Impact to drinking water and potential health risk to the public	0	0	0	**1**	0
DEED	Sites with deed restrictions	0	0	0	0	**1**
VCP	Voluntary Cleanup Program	0	0	0	0	---
CLEANERS	List of dry cleaner related facilities	0	0	0	---	---
WIP	Well Investigation Program Case List	0	0	0		
CDL	Clandestine Drug Labs	0	---	---	---	---
HAZNET	Information of the management of hazardous material	0	0	0	**12**	---
EMI	Emissions Inventory Data	0	0	0	**10**	---
FINANCIAL ASSURANCE	Financial Assurance Information Listings	0	---	---	---	---
Tribal Records		**Site**	**<⅛**	**⅛-¼**	**¼-½**	**½-1**
INDIAN RESERVE	Indian Reservation	0	0	0	0	0
INDIAN LUST	Leaking USTs on Indian land	0	0	0	0	---
INDIAN UST	Underground storage tanks on Indian land	0	0	0	---	---
Additional Regulatory Agency Lists Information		**Site**	**<⅛**	**⅛-¼**	**¼-½**	**½-1**
US EPA, Federal Superfund Liens List and California Liens		0	0	0	0	0
Cal EPA, Recorded Deed Restrictions		0	0	0	0	0

EDR RADIUS MAP SUMMARY					
The Munger Map Book California-Alaska Oil and Gas Fields Munger Maps, 2003	0	0	---	---	---

0 Number of sites identified
--- Not Searched

The following facilities/properties are located within 0.25 miles of the Site and were reviewed at the various local, state, and federal agencies, including the San Joaquin Health Department, the DTSC and the RWQCB.

The EDR database report lists the "Stockton Terminal" under multiple addresses and locations. The Stockton Terminal is the bulk-gasoline and diesel storage facility for the Stockton region. The terminal consists of multiple oil company-owned properties that are considered one impacted site for remedial purposes by the various state and local regulatory agencies. The EDR report also lists the Stockton Terminal under the following names: ST Services, Support Terminal Services, and STC Corp.

The companies and addresses associated with the Stockton Terminal are listed below:

British Petroleum-Atlantic Richfield Company (BP/ARCO)	2700 Washington
Valero Corporation/Texaco USA	2941 Navy Drive
Tosco Corporation/Kinder Morgan Energy	2947 Navy Drive
Tesoro Petroleum/Beacon	3003 Navy Drive
Time Oil Company	3015 Navy Drive
Stockton Petroleum	3025 Navy Drive

The regulatory issues associated with each these facilities are further discussed below, along with other files reviewed for facilities within 0.25 miles of the site.

Database Record Listing: UST, Cortese, SLIC, HIST UST, SWEEPS UST, CA FID UST	
Stockton Petroleum Port of Stockton	Oversight Agency(s): San Joaquin Environmental Management Department
3025 Navy Drive	Adjacent to the east of the Site
Stockton, Ca	Operational Status: Active
This facility has a permit dated July 28, 1994 on file with the SJEMD for the removal of three 12,000-gallon fuel USTs. Soil samples collected during the UST removal indicated that concentrations of Total Petroleum Hydrocarbons as Gasoline (TPH-g), Total Petroleum Hydrocarbons as Diesel (TPH-d), benzene, toluene, ethyl benzene and xylenes (BTEX) and Lead were found at maximum depths of 11 feet below ground surface (bgs). During the UST excavation and soil sampling groundwater was encountered at 11 feet bgs and flowing to the east. Additional soil samples collected at 15 feet bgs did not contain detectable amounts of TPH-g, TPH-d, BTEX or lead. In a letter dated October 27, 1994 the SJEMD proposed to back fill the excavation with clean fill dirt. No additional information was on file with the SJEMD. This facility is included in the ST Terminal as described above and due to the eastern flow of ground water it is unlikely that this facility would represent a REC to the subject property.	

Database Record Listing: UST, HAZMAT, EMI, Notify 65, RCRA-SQG, FINDS, Cortese, SLIC, CA FID UST, HIST UST, REF, SWEEPS UST	
Time Oil	Oversight Agency(s): San Joaquin Environmental Management Department
3015 Navy Drive	Adjacent to the east of the Site
Stockton, Ca	Operational Status: Active
This facility has a 2006 hazardous waste generator permit for the generation of greater than 5 tons and less than 25. Additionally this facility maintains a UST permit for a 6,000 gallon double-walled UST which contents are listed as "other." Files indicate that a gasoline leak occurred in 1993 and subsequently the UST associated with the gasoline leak was removed. However, no information pertaining to soil and/or groundwater samples nor a closure letter was available to review on file with the SJEMD. No additional information was on file with the SJEMD. This facility is included in the ST Terminal as described above and due to the eastern flow of ground water it is unlikely that this facility would represent a REC to the subject property.	

Database Record Listing: UST, ERNS, EMI, RCRA-SQG, FINDS, HAZNET, CHIMRS, UST, EMI, SWEEPS UST, ERNS, SLIC, CA FID UST, HIST UST, AST	
Beacon Tesoro Petroleum Aminol Stockton Termial	Oversight Agency(s): San Joaquin Environmental Management Department
3003 Navy Drive	Adjacent to the east of the Site
Stockton, Ca	Operational Status: Active
This facility has permits on file for one 15,000 gallon ethyl alcohol UST, one 10,000 gallon UST one 4,000 gallon UST, one 500 gallon UST and a 2006 hazardous waste generator permit for greater than 5 tons and less than 25 tons. Records on file with the SJEMD indicated a permit to remove the 15,000 gallon UST, however no record was made available to review indicate the UST was actually removed. This facility is included in the ST Terminal as described above and due to the eastern flow of ground water it is unlikely that this facility would represent a REC to the subject property.	

Database Record Listing: ERNS, UST, SLIC, CA FID UST, SWEEPS UST, FINDS, RCRA-LQG, CHMIRS, AST, HIST UST, SWEEPS UST, HAZNET, EMI	
Tosco Corporation, Stockton Terminal SFPP, LP Kinder Morgan Energy Partners Santa Fe Pacific Pipelines	Oversight Agency(s): San Joaquin Environmental Management Department
2947 Navy Drive	Adjacent to the east of the Site
Stockton, Ca	Operational Status: Active
This facility is listed as a large quantity generator of hazardous waste without any notices of violation. Currently this facility is undergoing passive bioremediation of gasoline and related compounds in the groundwater beneath the site. The bioremediation is being conducted in conjunction with the other bulk gasoline facilities in the area. The passive bioremediation appears to be successful in reducing the concentrations of the gasoline-range chemicals beneath the facility. Based on the direction of groundwater flow to the south-southeast and it is unlikely that the bulk gasoline facility petroleum hydrocarbon contamination represents a REC condition in connection to the subject site.	

Database Record Listing: UST, RCRA-SQG, FINDS, ERNS, HIST UST, HAZNET, CHIMRS, SLIC, CA FID UST, SWEEPS UST, EMI, CA WDS	
Texaco USA (ST Terminal) Exxon ST Services Support Terminal Services Inc Dave Marden Trucking Standard Transmission Terminal STC Corp of Stockton Williams Tank Lines Stockton Sales Terminal	Oversight Agency(s): San Joaquin Environmental Management Department
2941 Navy Drive	Adjacent to the east of the Site
Stockton, Ca	Operational Status: Active
This facility is included in the ST Terminal as described above and due to the eastern flow of ground water it is unlikely that this facility would represent a REC to the subject property.	

Database Record Listing: FINDS, HAZNET, RCRA-LQG, CA WDS, SLIC,	
Hydra-Agri North America Inc. TransCalifornia Terminal Corp.	Oversight Agency(s): San Joaquin Environmental Management Department
3019 Navy Drive	Adjacent to the east of the Site
Stockton, Ca	Operational Status: Active
This facility has a 2006 hazardous waste generator permit for the generation of less than 5 tons. A report dated September, 24, 1997, on file with the SJEMD, recommended the collection of 14 groundwater samples to be analyzed for nitrates, ammonia, TPH-g, TPH-d and BTEX; however no additional information was on file with the SJEMD. This facility is included in the ST Terminal as described above and due to the eastern flow of ground water it is unlikely that this facility would represent a REC to the subject property.	

Database Record Listing: UST	
Unocal Jemco Union Oil	Oversight Agency(s): San Joaquin Environmental Management Department
2835 Navy Drive	Adjacent to the east of the Site
Stockton, Ca	Operational Status: Active
This facility has records on file with the SJEMD indicating the removal of one 20,000 gallon diesel fuel UST and a 10,000 gallon Stoddard solvent UST April 1992. Groundwater samples were collected and analyzed for TPH-g, TPH-d, BTEX and lead. Detectable concentrations of TPH-g and TPH-d were identified in the soil and groundwater. Seven groundwater monitoring wells were installed at this facility. A closure letter dated June 6, 1994 for the 20,000 and 10,000 gallon USTs is on file with the SJEMD. No additional information for this facility was made available for review by the SJEMD. This facility is included in the ST Terminal as described above and due to the south-southeastern flow of ground water it is unlikely that this facility would represent a REC to the subject property.	

Database Record Listing: RCRA LQG, TRIS, FINDS, CA WDS, CA SLIC, CHMIRS, HAZNET	
BP Stockton Terminal Atlantic-Richfield Company ARCO Products Company Stockton Terminal	Oversight Agency(s): RWQCB
2700 W. Washington Street	Approx. 0.25 mile east of the site.
Stockton, CA	Operational Status:
This facility is registered as being a large quantity generator. As of 2003, this facility had not been issued any notices of violation. In addition, this facility is currently undergoing remediation for a gasoline leak into the soil and groundwater beneath the site. This facility is included in the ST Terminal as described above and due to the south-southeastern flow of ground water it is unlikely that this facility would represent a REC to the subject property.	

Database Record Listing: FINDS, HAZNET, SSTS, CA SLIC	
LESCO Tri-Delta Fertilizer	Oversight Agency(s): RWQCB
2829 W. Washington Street	Approx. 400 feet northeast of the subject site
Stockton, CA, 95203	Operational Status: Active
This facility was formerly permitted for the manufacture, storage, and handling of fertilizers. As of December 2005, the facility was shut down. In 1997, a limited subsurface investigation was conducted at the site in wich elevated concentrations of nitrates and sulfates were reported in soil and groundwater. An additional soil and groundwater subsurface assessment was conducted in March 2005 and elevated concentrations of ammonia, chloride, nitrate and sulfates were detected beneath the site. The RWQCB has since requested a third assessment to determine the vertical and lateral extent of the groundwater contamination beneath the site. Based on the direction of groundwater flow to the south-southeast, any off-site groundwater impacts from this facility should not represent a REC to the subject site.	

Database Record Listing: CERCLIS	
General Services Administration/Naval Communication Station	Oversight Agency(s): DTSC
Rough and Ready Island	Across the San Joaquin River, northwest of the Site
Stockton, CA	Operational Status: Active
EDR has listed this facility as a Department of Defense Site. Based on the available information in the DTSC files, four areas were investigated on Rough and Ready Island (RRI). These areas included a landfill area, a potential battery disposal area, a former fire fighting area, and a former damaged container storage area, which were identified by the Navy as having been areas of past waste disposal or hazardous materials handling. Soil samples were collected from each of these areas and analyzed for selected chemical and metal constituents based on the past practices of each area. Based on the results of the investigation, the soils with the highest concentrations of chemical constituents were located in the landfill area, on the west end of RRI. At this point, it does not appear that the four areas investigated on RRI have the ability to represent a REC to the subject site based on the distance and hydraulic separation of the San Joaquin River.	

The following files were requested by BSK but were unavailable for review by the date of this report:

Database Record Listing: FINDS, WDS, WMUDS/SWAT, CHMIRS	
Bay Sulfur Company	Oversight Agency(s): Unknown
2717 W. Washington Street	Approx. 500 feet northeast of subject site
Stockton, CA 95201	Operational Status: Unknown
This facility is permitted for the discharge of process waste. The mechanism behind the waste discharge/disposal is unknown. However based on the direction of groundwater flow to the south-southeast, it is unlikely that this facility would represent a REC to the subject property.	

Database Record Listing: HAZNET, CA WDS, CA FID, LUST, CORTESE	
TXI Riverside Cement Company	Oversight Agency(s): San Joaquin County EHD
2845 W. Washington Street	Approx. 300 feet northeast of subject site
Stockton, CA 95201	Operational Status: WDS: Active LUST: Closed
This facility is permitted for stormwater run-off from the site. The facility is required to have a waste discharge permit, since it is a cement and aggregate company, which consists of a portion of the run-off from the site. In addition, this facility was formerly under investigation for a leaking UST during tank removal operations in 1992. The leak was determined to be restricted to soil only and the San Joaquin County EHD, issued regulatory closure. Based on the limited extent of soil contamination and the direction of local groundwater flow to the southeast, this facility should not represent a REC to the subject site.	

6.0 RECORDS REVIEW

The following resources were researched to assess the history of the Site; Sanborn Fire Insurance Maps (Sanborn Maps), USGS 7.5 minute Topographic Maps, Historical Aerial Photographs, Haines Criss-Cross Directories (Haines) and Polk Guide Directories (Polks) provided by EDR and or researched at the San Joaquin County Surveying Department.

6.1 Review of Historical Sanborn Fire Insurance Maps

BSK retained EDR, of Milford, Connecticut to conduct a search of available historical Sanborn Fire Insurance Maps to obtain information regarding the former uses of the Site.

According to EDRs *Sanborn No Coverage Letter* dated May 4, 2006, the largest and most complete collection of Sanborn fire insurance maps were reviewed and fire insurance maps depicting the Site were not identified. The Sanborn Map Report issued by EDR indicated no coverage for the Site and the adjacent properties. Appendix B includes a copy of the "No Coverage" Sanborn Map Report.

6.2 Review of Historical Topographic Maps

Historical topographic maps dated; 1913, 1952, 1968, 1976 and 1987 were provided by EDR to obtain information regarding the developmental history and land use of the Site and immediate vicinity. The following summarizes information obtained from the review of the subject topographic maps:

HISTORICAL TOPOGRAPHIC MAP REVIEW

Year	Site and Adjacent Property Observation
1913	A review of the 1913 historic topographic map shows three square structures on the property. One of the structures is along the river on the north side of the property and the other two are located in the general vicinity of the farm-structures identified in the 1937 aerial photograph. The immediate area around the site is designated as "Moss Tract" on the map. Rough and Ready Island (RRI) is shown to the west of the site, Roberts Island is shown to the south of the site, and Weber Tract is shown to the north of the site across the Stockton Channel.
1952	A review of the historic topographic map shows the site as a "spoil area" which appears to reference the disposal of the dredge sediments. The three structures shown on the site in the 1913 map are no longer represented on the 1952 map. RRI Naval Reservation is shown to the west, and "gasoline tanks" are represented for the Stockton Terminal a bulk gasoline and diesel facility which is located to the east of the site.
1968	A review of the historic topographic map no longer shows the site as a "spoils area" and the site is shown as vacant with sparse vegetation along the southern portion. There is no change to the properties to the west and east. One structure is represented on the property to the north, which is currently developed as a gun range, and the Waste Water Treatment Plant has expanded greatly to the south and represented with "sewage disposal ponds."
1976	Photorevision of 1968 map. There is no observable change to the site or adjacent properties to the north, south or west. The Stockton Terminal to the east is represented with additional aboveground storage tanks (ASTs) for the bulk storage of gasoline and diesel.
1987	Photorevision of 1968 map. There is no observable change to the site or adjacent properties to the north, south, or west. The Stockton Terminal to the east is represented with additional ASTs.

6.3 Review of Historical Aerial Photographs

Historical aerial photographs dated; 1937, 1957, 1963, 1970, 1982, 1993 and 1999 were reviewed to obtain information regarding the developmental history and land use of the Site and vicinity were provided by EDR and reviewed at the San Joaquin County Surveying Department. In addition, an aerial photograph dated 2002 was reviewed from www.googleearth.com. The following summarizes information obtained from the review of the subject aerial photographs:

AERIAL PHOTOGRAPH REVIEW

Year	Site Use	Site and Adjacent Property Observation
1937	Agriculture-south, vacant-north	A review of the aerial photograph reveals that the northern portion of the site is vacant and undeveloped. However, the southern and southeastern portion of the site appears to be used for agricultural purposes. A potential farm residence and related structures are located adjacent to the river on the southwest property boundary. The adjacent properties in all

Year	Site Use	Site and Adjacent Property Observation
		directions, appear to be used for agricultural purposes, including the land on RRI, across the river.
1957	Vacant	A review of the aerial photograph reveals that the site is vacant and undeveloped. The structures observed in the southwest portion of the site in the 1937 photograph are no longer visible and the southern and eastern portions of the property are no longer being used for agricultural purposes. With the exception of the northern portion of the property, the rest of the site appears to be vegetated with native grasses and plants. The northern portion of the property appears to be used for the disposal of dredge sediments. The industrialization of the Port of Stockton appears to be occurring to the east of the site based on the bulk gasoline tank-farm (Stockton Terminal) observed in the photo, and RRI to the north and west appears to be used as a Naval base. The property to the south appears to be still used for agricultural purposes.
1963	Vacant	A review of the aerial photograph indicates minor change to the site and surrounding properties. The amount of dredge sediments on the northern portion of the site appears to have increased and the amount of vegetation on the southern portion of the property has decreased. A gun range identified during the site reconnaissance on the property to the north appears to have been constructed.
1970	Vacant	The 1970 aerial photograph has limited coverage and only shows the site and immediately adjacent properties to the north, west, and south. The site appears to be completely re-worked and graded, with the exception of a small vegetated area in the center. There is no observable change to properties to the north (gun range), west (Rough & Ready Island), and south.
1982	Vacant	A review of the aerial photograph shows no significant changes to the site and adjacent properties to the north and west. The Stockton Terminal to the east appear to be more developed with larger gasoline tank-farms, and the properties to the south are developed with the existing storm-water retention basin and the Stockton Waste Water Treatment Plant, across the river.
1993	Vacant	The Site and adjacent properties appeared generally the same as indicated on the 1982 photograph.
1999	Vacant	The Site and adjacent properties appeared generally the same as indicated on the 1993 photograph.
2002	Vacant	The Site appears to be extensively re-worked and used for the disposal of dredge sediments. Several pools of standing water are observed along the northern property boundary. The southeastern portion of the site appears to be densely vegetated. There appears to be very little change to the adjacent properties.

6.4 Review of Historical Haines Criss-Cross and Polk Guide Directories

Reasonably ascertainable Haines and Polk Directories information was provided by EDR. Since the site does not have a physical address, the address of an adjacent site, 2947 Navy Drive was provided to EDR and used to generate the city directory information. The purpose of the directory review was to obtain information regarding occupants potentially associated with the Site to provide an indication of the former land use around the Site. A summary of Haines and Polk Directories information is presented below.

HAINES CRISS-CROSS/POLK GUIDE DIRECTORY SUMMARY

Address	Owner/Occupant	Years
2835 Navy Drive	No Listings	1965-1970
	Union Oil Company	1975-1980
	Jemco Union Oil Company	1985-1990
	No Listings	1995-2000
2941 Navy Drive	No Listings	1965-1970
	Williams Tank Lines/ST Services	1975-1990
	Support Terminals Operating Partnership	1995-2000
2947 Navy Drive	No Listings	1965-1970
	Southern Pacific Pipelines Inc.	1975-1990
	Kinder Morgan Energy Partners	1995-2000
3003 Navy Drive	Signal Oil & Gas Co.	1965-1970
	Aminoil USA	1980-1985
	Tesoro Refining Marketing & Supply Corporation	1985-2000
3015 Navy Drive	No Listing	1965
	Delta Stations Inc.	1970
	Time Oil Company	1975-1990
	No Listings	1990-2000
3019 Navy Drive	No Listings	1965-1970
	Transcalifornia Terminal Corporation	1975-1990
	Hydro-Agri North America	1995-2000

6.5 Review of Development Department Records

Since the site has been vacant and undeveloped for over 50 years, development department records were not researched as part of this ESA.

7.0 SITE RECONNAISANCE OBSERVATIONS AND INTERVIEW

A site reconnaissance, which included a visual observation of the Site and adjacent properties, was conducted by Mr. C. Michael McKenzie of BSK on June 13, 2006. Site photographs are included in Appendix A. The objective of the site reconnaissance was to obtain information indicating the likelihood of identifying RECs, including hazardous substances and petroleum products, in connection with the property and/or adjacent properties (including soils, surface waters, and groundwater).

7.1 Methodology and Limiting Conditions

The site reconnaissance included visual observations of most of the property including interior spaces, the exterior periphery, and immediately adjacent properties. In addition, a windshield survey of nearby properties was conducted to determine if any adverse impacts to the site from these properties could be ascertained. Limiting conditions to the property reconnaissance are listed below:

Access/egress to the site is only available at the Navy Drive and Washington Street entrance. In addition, access to the central portions of the site was limited by locally hilly topography and dense vegetation. Furthermore, the windshield survey was limited in scope since BSK was not allowed past the Naval Checkpoint on RRI, nor is there any public access to the roads which traverse the City of Stockton Waste Water Treatment Plant.

The following structures/conditions were observed on the Site during the reconnaissance.

SUMMARY OF SITE RECONNAISSANCE

Feature	Observed	Not Observed
Structures (existing)		X
Evidence of past uses (foundations, debris)		X
Hazardous substances and/or petroleum products (including containers)		X
Aboveground storage tanks (ASTs)		X
Underground storage tanks (USTs) or evidence of USTs		X
Potential polychlorinated biphenyl (PCB) containing equipment		X
Wells (irrigation, domestic, dry, injection, abandoned, monitoring wells)	X	
Drums (55 gallons or greater)		X
Unidentified substance containers		X
Strong, pungent, or noxious odors		X
Subsurface hydraulic equipment		X
Heating/ventilation/air conditioning (HVAC)		X
Stains or corrosion on floors, walls, or ceilings		X
Floor drains and sumps		X
Pits, ponds, or lagoons	X	
Stained soil and/or pavement		X

Feature	Observed	Not Observed
Stressed vegetation		X
Waste or wastewater discharges to surface or surface waters on Site (including stormwater)	X	
Pools of liquid likely to be hazardous materials or petroleum products		X
Septic Systems		X

The site consists of 99-acres of vacant land along the San Joaquin River (Figure 1). The east side of the property, along Navy Drive, is denoted with an approximate 20-foot high soil levee. Along the Navy Drive side of the levee, three groundwater monitoring well vaults were observed. The monitoring wells are related to the numerous gasoline and diesel leak investigations being conducted at the Stockton Terminal which border the subject site to the east. Furthermore, two sets of pole-mounted transformers were observed along eastern property boundary, adjacent to Navy Drive. The pole-mounted transformers service the Stockton Terminal and appeared to be in good condition. In addition, a smaller, approximately 6-foot high levee protects the west and north sides of the property from the river.

The property consists of uneven, hilly topography from the deposition of river sediments due to dredging operations from the San Joaquin River. It appears that the topography of the site has been artificially elevated anywhere from 5 to 15 feet due to the deposition of the dredged soil. In addition, from a ground-surface observation, it appears that the dredge contractors have created artificial ponds and channels using the existing site sediments in order to channel the dredge sediments around the site.

The site is currently undeveloped. Heavy vegetation consisting of native grasses and plants cover most of the ground surface around the property. Numerous areas of gray mud sediments with no vegetation, indicating recent deposition, were observed around the site. According to Ms. Kimberly Mah, the last time dredge sediments were deposited on site was in December 2005.

Most of the dredge sediments were dry and were cracked as a result. Mud cracks in the dredge deposition areas ranged from 3 to 6-inches wide and up to 18-inches deep. In addition, a shallow pond of standing water was observed along the central eastern property boundary, which may have remained from the heavy rains of March and April. Sections of an approximate 10-inch diameter rubber pipe were observed along the north property boundary. The rubber piping appears to be related to the dredging operations and the roughly cut sections discarded on-site ranged in length from 1-foot to 10-feet long. Concrete debris was also observed along the edge of the river. The debris appears to be used to shore up the river side of the levee.

Due to the inaccessibility of the central portions of the site, most of the reconnaissance was conducted from the road which traverses the periphery of the site. However, BSK did traverse certain areas of the interior portions of the property to observe features of interest, which are presented below.

In two areas of the site, culvert pipes were observed, which are apparently used to channel the water associated with the dredge sediments around the site. One set of culvert pipes were observed on the north end of the property and the other set was observed on the south side of the property. The three culvert pipes in the south side of the property are located in conjunction with two small ponding basins along the south property boundary. They appear to be used to channel water from the dredge deposits into the storm-water retention pond, which borders the property to the south and to the San Joaquin River to the west.

In addition, the site has been used in the past as a "dirt quarry" according to Ms. Mah. Soil was removed from the site and sold to construction contractors. During the site reconnaissance, a pad-locked mailbox was observed in the northwest interior portion of the property. The mailbox was painted with the lettering: "FTG Tags". According to Ms. Mah, the mailbox was left over from one of the contractors who removed soil from the site.

Furthermore, a recent soil investigation was conducted at the site by Environmental Risk Services (ERS) for an unrelated project on RRI. Select soil samples were collected from the dredge sediments and the native soil beneath for analytical characterization. The results of the soil sampling indicate that metal concentrations in the dredge sediments are below the screening levels established in the California Human Health Screening Levels.

7.2 Adjacent Properties

During BSK's June 13, 2006 Site reconnaissance the following features were observed on the adjacent properties.

Adjacent to the north was the Stockton Police Department pistol range, no evidence of surface staining or hazardous materials storage/waste was observed on or in proximity to this property. Adjacent to the southeast was a storm-water retention pond and to the southwest is the San Joaquin River. Beyond the river to the southwest is the City of Stockton Waste Water Treatment Plant. No evidence of surface staining or hazardous materials storage or waste was observed on or in proximity to this property.

Adjacent to the east of the Site is the Stockton Terminal, a bulk gasoline and diesel facility which is split into several parcels, separately operated by the major gasoline retailers. Evidence of surface staining or hazardous materials storage/waste was observed on or in proximity to this property. In addition, the Stockton Terminal is currently under investigation for numerous releases of gasoline and diesel-range hydrocarbons into the soil and groundwater. The facility is being treated as a single site for regulatory purposes, despite having separate operators.

Adjacent to the west, across the San Joaquin River is RRI. No visual evidence of surface staining or hazardous materials storage/waste was observed on or in proximity to this property; however this facility has been under investigation for numerous hazardous material releases into the soil and groundwater from past operations.

8.0 INTERVIEWS

Various people related with the site and site operations were interviewed to obtain additional Site information. The interview was used to obtain information regarding the Site history, develop a preliminary assessment of the environmental condition of the Site, and obtain information regarding the potential for soil, groundwater, and/or surface water contamination associated with the former or current generation, use, storage, handling, or disposal of hazardous materials and/or petroleum products on or in the vicinity of the Site.

NAME	FUNCTION	EMPLOYER	DATE	CONTACT
Mr. Tom Koehler	Vice President	Pacific Ethanol	June 29, 2006	Email & Phone
Ms. Kimberly Mah	Assistant Property Manger	Port of Stockton	June 16, 2006	Email & Phone
Mr. Jeff Wingfield	Environmental Manager	Port of Stockton	June 16, 2006	Phone
Mr. Steve Michelson	Geologist	Environmental Risk Services	June 26, and September 5, 2006	Email and Phone
Mr. Jeremy Hughes	Environmental Consultant	Levine-Fricke Incorporated	September 20, 2006	Phone

Pertinent information reported by the interviewed parties is discussed in appropriate sections of the report.

9.0 SUMMARY OF FINDINGS

Based on information obtained from Site and Site-vicinity observations, interviews, and the review of historical and regulatory agency information, a summary of findings are presented.

The chronology of the current and past uses of the property is listed on the table below:

Year(s)	Property Use	Reference Source
Prior to 1913	No data	Historic Data Gap
1913	The northern portion of the site is shown with one building and the southern portion of the site is shown with two buildings.	Historic Topographic Map
1937	The northern portion of the site appears to be undeveloped and the south and east portions of the site are used for agricultural purposes, including a farm residence.	Aerial Photograph
1952	The site is represented on the map as a "spoils area" which appears to reference the disposal of dredge deposits. The three structures shown on the 1913 map are no longer represented on the updated map.	Historic Topographic Map

Year(s)	Property Use	Reference Source
1957-2002	The northern portion of the site appears to be used for the deposition of dredge deposits and the southern portion of the site appears to be heavily vegetated.	Aerial Photographs and Historic Topographic Maps
2005	As of December 2005, the site is no longer used to store dredge deposits	Interview with Ms. Kimberly Mah
2006	The site is vacant and undeveloped. Repeated deposition of dredge cuttings were observed on site.	Site Reconnaissance

The site appears to have been partially developed prior to 1913, constituting a data failure as described in Section §8.3.2.3 of the ASTM Standard E 1527-05; however the prior development appears to be limited to residential and agricultural use and therefore does not appear to represent a recognized environmental condition to the site.

From approximately 1950 to 2005, the site was used as a disposal location for dredge sediments from the San Joaquin River. The San Joaquin River is periodically dredged in the area of the Port of Stockton in order to allow large container ship traffic on the River. The topography of the site has been artificially elevated between 5 and 10 feet as a result of these operations. Since the dredge sediments consist of river bottom materials, the possibility exists that the deposits could contain elevated concentrations of metals, including lead from ship paint, and items typically found in bilge of ships including oil, grease, and other petroleum hydrocarbons.

However, in an unrelated investigation, soil samples were recently collected on-site from the dredge sediments and the native soils beneath the sediments by ERS Corporation (ERS). ERS is proposing to remove a portion of the dredge sediments to use as foundation material for a proposed warehouse on Rough and Ready Island. According to Mr. Steve Michelson of ERS, the findings of their investigation indicated that the dredge sediments do not pose a "significant threat" to groundwater. A copy of the ERS report has been included in Appendix E.

During the site reconnaissance, three monitoring wells were observed on-site along the eastern property boundary, bordering Navy Drive. The monitoring wells are part of an ongoing passive remediation project for the Stockton Terminal, bulk gasoline facility, adjacent to the east of the site. According to the file documentation at the SJCEHD and the RWQCB, the predominant groundwater flow direction is to the south-southeast, away from the site.

BSK contacted Mr. Jeremy Hughes of Levine-Fricke Incorporated (LFR) regarding the analytical results of two of the monitoring wells, PS/P-21 and PS/P-23. Although LFR's client, Kinder Morgan Energy Partners, is not responsible for sampling the monitoring wells PS/P-21 and PS/P-23, the soil and groundwater data from most of the Stockton Terminal sites is shared among the consultants. According to Mr. Hughes, there are several shallow groundwater zones beneath the site and that monitoring wells PS/P-21 and 23 are screened within the upper "A" zone. Furthermore, Mr. Hughes stated that the groundwater sample collected from PS/P-21 in February 2006 was reported with a TPHd concentration of 330 µg/l (parts per billion). The analytical results for PS/P-23 were reported as "none detected" for gasoline, diesel, and related compounds. Detectable concentrations of MTBE have been reported in groundwater sample collected from PS/P-23 in previous sampling events, but at levels below the 5 ppb MCL for MTBE.

The chronology of the current and past uses of the adjacent properties is listed on the table below:

Year(s)	Property Use	Reference Source
North (Stockton Police Department Pistol Range)		
1913-1957	The north adjacent property was represented as vacant and undeveloped.	Historic Topographic Map and Aerial Photograph
1963-2006	The north adjacent property is developed into a gun and pistol range.	Historic Topographic Maps, Aerial Photographs, and Site Reconnaissance.
Northwest (Rough and Ready Island)		
1913	The map shows the northwest adjacent property as Rough and Ready Island. The island is shown with a few buildings, but is mostly undeveloped.	Historic Topographic Map
1937	The northwest adjacent property is being mostly used for agricultural purposes	Aerial Photograph
1952-2006	The northwest adjacent property is being used for the Rough and Ready Island Naval Reserve.	Historic Topographic Maps, Aerial Photographs, and Site Reconnaissance.
Southwest (Stockton Waste Water Treatment Plant)		
1913	The map shows the property to the south as Roberts Island. A few buildings, probably residences, are represented on the map for this area.	Historic Topographic Map
1937-1963	The southwest adjacent property appears to be used for agricultural purposes.	Aerial Photographs and Historic Topographic Maps
1970-2006	The southwest adjacent property appears to be used for the City of Stockton Waste Water Treatment Plant.	Aerial Photographs, Historic Topographic Maps, Site Reconnaissance.
South (Storm-water retention pond)		
1913	The map shows the adjacent property to the south as being undeveloped.	Historic Topographic Map
1937	The property adjacent to the south appears to be used for agricultural purposes. A large barn-type structure is visible in the northwest corner of the property.	Aerial Photograph
1952-1968	The property adjacent to the south appears to be vacant. No buildings are visible on the property.	Historic Topographic Map and Aerial Photographs
1969-1981	No data	Data gap.
1982-2006	The property adjacent to the south is being used as a storm-water retention pond.	Historic Topographic Maps, Aerial Photographs and Site Reconnaissance.
East (Stockton Terminal)		
1913	The map shows the adjacent property to the east as being undeveloped	Historic Topographic Map
1937	The property adjacent to the east is being used for agricultural purposes.	Aerial Photograph
1952-2006	The maps and aerial photographs show the adjacent property to the east as being developed with large above ground tanks for the bulk distribution of gasoline.	Historic Topographic Maps, Aerial Photographs, City Directories, and Site Reconnaissance.

The adjacent property to the north is currently used by the Stockton Police Department as a pistol range. Historically the property appeared to be used for this purpose since approximately 1960. Prior to 1960, the property appeared to be undeveloped. The adjacent property to the northwest, RRI, was used for agricultural purposes until the construction of the US Naval Base in approximately 1950.

10.0 CONCLUSIONS AND RECOMMENDATIONS

BSK has preformed a Phase I ESA Site Assessment in accordance with the scope and limitations of ASTM Practice E 1527 of the 99-Acre Property located at the intersection of Navy Drive and Washington Street. Any exceptions to or deletions from, this practice are described in Section 3.3 of this report. This assessment has revealed evidence of a recognized environmental condition in connection with the property and it is explained further below.

Three groundwater monitoring wells were identified on the property during the site reconnaissance. Groundwater samples collected from one of the three monitoring wells in February 2006 was reported with low concentrations of diesel fuel. In addition, one of the other two wells, has been previously reported with low concentrations of MTBE. Therefore, it appears that the groundwater beneath the site may be impacted by petroleum hydrocarbons originating from the Stockton Terminal facility. However, the concentrations of petroleum hydrocarbons observed in the monitoring wells is low and groundwater flow is to the south-southeast, away from the site. Appropriate measures should be implemented during construction activities to minimize drawing the hydrocarbon plume toward the site.

11.0 LIMITATIONS

The findings presented in this report were based upon field observations during a Site reconnaissance and discussions with local regulatory agencies. Observations describe only the conditions present at the time of this investigation. The data reviewed and observations made are limited to accessible areas and available records searched during the course of this investigation. BSK cannot guarantee the completeness or accuracy of the regulatory agency records reviewed. Unless BSK otherwise expressly agrees in writing, no other party is entitled to rely upon the observations, research information, or conclusions presented in this report or in any other material obtained by BSK from the sources identified in this report. Additionally, in evaluating the property, BSK has relied in good faith upon information provided by the interview source noted in the report with respect to existing property conditions, and the historic uses of the property. It must also be understood that changing circumstances in the property usage, proposed property usage, Site zoning, and changes in the environmental status of the other nearby properties can alter the validity of conclusions and information contained in this report. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used.

This ESA report provides neither certification nor guarantee that the Site is free of hazardous-material and/or petroleum-product contamination or that there are no recognized environmental conditions associated with the Site that potentially pose an environmental risk/liability or that the Site is in compliance with current applicable federal, state, or local regulations. Findings of this

ESA may have a potential for negative impact on the value or suitability of the property for the purpose intended. BSK cannot assume liability for such negative impact. No warranties, expressed or implied, are made as to the findings or conclusions presented in this report. Sampling and analytical testing of soil, groundwater, air, radon gas, biological agents and/or construction/building materials was not part of the scope of services for this ESA. This ESA did not include sampling or laboratory analysis of materials suspected of being radioactive or containing asbestos, lead, urea-formaldehyde, mold, pesticides or PCBs.

BSK ASSOCIATES

12.0 REFERENCES

INTERVIEWS:
Mr. Tom Koehler, Vice President, Pacific Ethanol, June 29, 2006
Ms. Kimberly Mah, Property Manger, Port of Stockton, June 16, 2006
Mr. Jeff Wingfield, Environmental Compliance Manager, Port of Stockton, June 16, 2006
Mr. Steve Michelson, Environmental Risk Services, June 26, 2006.
Mr. Jeremy Hughes, Levine-Frick Inc., September 20, 2006

Aerial Photographs provided by EDR for the years of 1957, 1963, 1970, 1982, 1993, and 1999. 1937 aerial photograph reviewed at the San Joaquin County Surveying Department and an aerial photograph dated 2002 from goolgeearth.com.

Historic Topographic Maps provided by EDR for the years of 1913, 1952, 1968, 1976, 1987.

American Society for Testing and Materials (ASTM) E1527-05 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.*

Central Valley Regional Water Quality Control Board (RWQCB), File Review, June 7 and June 26, 2006.

California Department of Toxic Substances Control (DTSC), File Review, July 24, 2006.

Environmental Data Resources, Inc. (EDR), EDR Radius Map Report dated May 4, 2006

San Joaquin County Environmental Health System (SJCEHS), File Review, June 13, 2006

Haines Criss-Cross Directories (Haines) and Polk Guide Directories (Polks) provided by EDR on May 4, 2006.

Sanborn Fire Insurance Maps (Sanborn) provided by EDR on May 4, 2006

13.0 QUALIFICATIONS

This Phase I ESA was prepared by a California Professional Geologist under the direction of a California Professional Civil Engineer. The assessment was conducted in general accordance with ASTM E 1527-05 for all appropriate inquiry, and generally accepted industry standards for environmental due diligence in the place and time of the preparation of this report.

If you have any questions or comments, please do not hesitate to contact the undersigned at 559.497.2880.

Sincerely,
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Appendix I – Geotechnical Report

Geotechnical Investigation

Targa Stockton Terminal (TST)

3040 Navy Drive

Stockton, California

Report No. 185908 has been prepared for:

Targa Terminals, LLC

1000 Louisiana, Suite 4300, Houston, Texas 77002

December 5, 2011

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TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Project Description 1
1.2 Scope of Services 3
2.0 SITE CONDITIONS 4
2.1 Site Reconnaissance 4
2.2 Previous Studies 4
2.3 Exploration Program 6
2.4 Subsurface Conditions 6
2.5 Ground Water 7
3.0 GEOLOGIC HAZARDS 7
3.1 Fault Rupture 7
3.2 Maximum Estimated Ground Shaking 7
3.3 Future Earthquake Probabilities 7
3.4 Liquefaction 8
3.4.1 General Background 8
3.4.2 Analysis and Results of Current Explorations 8
Table 1. Results of Liquefaction Analyses – CPT Method 10
Table 1 (Continued). Results of Liquefaction Analyses – CPT Method 11
Table 1 (Continued). Results of Liquefaction Analyses – CPT Method 12
3.4.3 Potential for Ground Rupture/Sand Boils 13
3.5 Dry Seismic Settlement 13
3.6 Lateral Spreading 13
4.0 CORROSION EVALUATION 13
Table 2. Results of Corrosivity Testing 14
Table 3. Relationship Between Soil Resistivity and Soil Corrosivity 14
Table 4. Relationship Between Sulfate Concentration and Sulfate Exposure 15
(UBC Table No. 19-A-4) 15
5.0 CONCLUSIONS AND DEVELOPMENT CONSIDERATIONS 15
5.1 Conclusions 15
5.1.1 Compressible Soil 16
5.1.2 Undocumented Fill 16
5.1.3 Strong Seismic Shaking 16
5.1.4 Liquefaction-Induced Total and Differential Settlement 16
5.1.5 Shallow Ground Water 16
5.1.6 Moderately Expansive Clays 17
5.1.7 Corrosion Potential of the Near-Surface Soils 17
5.2 Plans, Specifications, and Construction Review 17
6.0 EARTHWORK 17
6.1 Clearing and Site Preparation 17
6.2 Removal of Undocumented Fill 17
6.3 Abandoned Utilities 18
6.4 Subgrade Preparation 18
6.5 Material for Fill 18
6.6 Compaction 19
6.7 Wet Soil Conditions 19
6.8 Trench Backfill 19
6.9 Temporary Slopes and Trench Excavations 20
6.10 Surface Drainage 20
6.11 Landscaping Considerations 20
6.12 Construction Observation 21

7.0 FOUNDATIONS 21
7.1 2010 CBC Site Coefficients and Site Seismic Coefficients 23
Table 5. 2010 CBC Site Class and Site Seismic Coefficients 23
7.2 Friction Piles for Tank Foundations 23
7.2.1 Vertical Loads 23
Table 6. Estimated Allowable Capacities for 12-and 14-inch Driven, Precast, Prestressed Concrete Piles 24
7.2.2 Lateral Loads on Piles 24
Table 7. Estimated Lateral Pile Response – 12- and 14-inch Square Piles 24
7.2.3 Passive Resistance Against Pile Caps and Grade Beams 25
7.2.4 WEAP Analysis 25
7.2.5 Indicator Piles 25
7.2.6 PDA Monitoring 25
7.2.7 Production Pile Installation 26
7.3 Augercast Pressure-Grouted Displacement (APGD) Piles for Tank Foundation 26
7.3.1 Vertical Capacities 26
Table 8. Estimated Allowable Capacities for 18-and 24-inch Auger Pressure Grouted Displacement Piles 27
7.3.2 Lateral Loads on Augercast Piles 27
Table 9. Estimated Lateral Pile Response – 18- and 24-inch Round Piles 27
7.3.3 Passive Resistance Against Pile Caps and Grade Beams 28
7.3.4 Pile Load Tests 28
7.4 Footings for Site Buildings 28
7.5 Friction Piers for Steel Structures 29
8.0 CONCRETE SLABS-ON-GRADE 30
8.1 Slabs-on-Grade 30
8.2 Moisture Protection Considerations 30
9.0 RETAINING WALLS 31
9.1 Lateral Earth Pressures 31
9.2 Drainage 31
9.3 Backfill 32
9.4 Foundation 32
10.0 CONTAINMENT WALLS 32
11.0 CONTAINMENT BERMS 32
12.0 PIPE JACKING 33
12.1 Pipe Jacking Method 33
12.2 Pipe Jacking Recommendations 33
12.3 Jacking and Receiving Pits 34
12.3.1 Temporary Shoring 34
12.3.2 Lateral Earth Pressures 34
12.3.3 Surcharge Loads 35
12.3.4 Temporary Construction Dewatering 35
12.3.5 Jacking and Receiving Pit Backfill 36
13.0 PAVEMENTS 37
13.1 Asphalt Concrete 37
Table 10. Recommended Asphalt Concrete Pavement Design Alternatives 37
13.2 Portland Cement Concrete Pavements 37
Table 11. Recommended Minimum PCC Pavement Thickness 38
13.3 Pavement Cutoff 38
13.4 Asphalt Concrete, Aggregate Base and Subgrade 38
13.5 Flatwork and Sidewalks 38
14.0 LIMITATIONS 39
15.0 REFERENCES 39

FIGURE 1 — VICINITY MAP
FIGURE 2 — SITE PLAN
FIGURE 3A — SITE PHOTOGRAPHS 1 & 2
FIGURE 3B — SITE PHOTOGRAPHS 3 & 4
FIGURE 3C — SITE PHOTOGRAPHS 5 & 6
FIGURE 4A — CROSS SECTION A-A'
FIGURE 4B — CROSS SECTION B-B'
FIGURE 5A — VERTICAL PILE CAPACITIES
FIGURE 5B — VERTICAL PILE CAPACITIES FOR CPT-16

APPENDIX A — FIELD INVESTIGATION
APPENDIX B — LABORATORY PROGRAM
APPENDIX C — FIELD EXPLORATIONS ELEVATIONS AND LATITUDE/LONGITUDE MEASUREMENTS

GEOTECHNICAL INVESTIGATION
TARGA STOCKTON TERMINAL (TST)
STOCKTON, CALIFORNIA

1.0 INTRODUCTION

This report presents the results of our geotechnical investigation for the Targa Stockton Terminal (TST) project to be located in Stockton, California. The site location is shown on the Vicinity Map, Figure 1. The purpose of our investigation was to evaluate the subsurface conditions at the site and to provide geotechnical recommendations for design of the proposed development. For our use we received the following:

- Report titled "Geotechnical Investigation, Proposed Linerboard Mill, Port of Stockton, Stockton, California," prepared by Kleinfelder, Inc. dated April 20, 1990.
- Report titled "Preliminary Geotechnical Exploration, Engineering, and Seismic Site Hazard Report, Proposed Pacific Ethanol Facility, Southwest Corner of the Intersection of West Washington Street and Navy Drive, Port of Stockton, Stockton, California, PSI Report No. 575-65006-1," prepared by Professional Service Industries, Inc. dated July 24, 2006.
- Letter titled "Additional Preliminary Geotechnical Recommendations, Lime Stabilization, Proposed Pacific Ethanol Plant, Stockton, California," prepared by Professional Service Industries, Inc. dated February 5, 2007.
- Set of grading plans titled "Pacific Ethanol, Inc., Stockton, California, Phase 1 – Grading Plan," prepared by TKDA Engineers, Architects, and Planners dated February 6, 2007.
- Report titled "Additional Geotechnical Exploration and Recommendations, Proposed Pacific Ethanol Facility, Southwest Corner of the Intersection of West Washington Street and Navy Drive, Port of Stockton, Stockton, California, PSI Report No. 575-65006," prepared by Professional Service Industries, Inc. dated February 26, 2007.
- Topographic site plan titled, "Port of Stockton, 11-1604," prepared by Vertical Mapping Resources, Inc. dated August 10, 2011.

1.1 Project Description

Targa Terminals, LLC (Targa) is considering the construction of a terminalling and storage facility at an identified site adjacent to the Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California. Targa is proposing to develop an approximately 17+/- acres within the rail circle at the Pacific Ethanol Site. The development will include storage tanks, site buildings, pipelines, containment berms, steel structures, and roads. A site plan is shown in Figure 2.

TANKS

Targa will install twenty storage tanks of ranging in size from 10,000 barrels (bbls) with dimensions of 40 feet in diameter and 48 feet in height to 80,000 bbls with dimensions of 110 feet in diameter and 48 feet in height to receive and store product. Structural loads have not yet been provided to us, however, we assume that structural loads will be representative for this type of construction.

All tanks will be of welded steel construction, designed in accordance with the latest edition of American Petroleum Institute (API) Standard 650, "Welded Steel Tanks for Oil Storage." The storage tank foundations will be concrete ring-walls, elevated approximately 1½ feet above the surrounding grade. The design will include tank bottom leak detection and cathodic protection. The tank farm would be equipped with a tank vapor collection system to collect emissions generated during tank filling operations when the tank roofs are being floated.

SITE BUILDINGS

The Terminal will include the following buildings: Control Building, 2400 square feet (sq. ft.); Maintenance Shop, 900 sq. ft.; Bill of Lading Building with Drivers Facilities, 480 sq. ft.; and Sample Shed, 100 sq. ft. The Control Building will include the control room, office for the terminal manager, restroom facilities, lockers for the operators, as well as the terminal control panels and control equipment. The maintenance shop will include restroom facilities, lockers for maintenance staff, office for the terminal maintenance manager as well as workshop and storage space. The bill of lading building will include driver's restroom facilities, desk and public telephones. The sample shed will house the equipment used to identify and control product batch changes. This building will not normally be occupied.

The Control Room building, maintenance shop, bill of lading building, and sample shed will be a pre- engineered / prefabricated steel metal shell designed and constructed to meet the requirements of the California Code of Regulations, Title 24. The prefabricated buildings will be installed on concrete slabs with footings. Structural loads have not yet been provided to us, however, we assume that structural loads will be representative for this type of construction.

PIPELINES

The proposed project will install approximately a 5,000 feet of pipeline systems of new belowground pipelines, allowing transportation of the petroleum products from the Deep Water Channel Dock/Berth and the Kinder Morgan Product (KMP) pipeline to the TST and ultimately TST Customers. The Deep Water Channel Berth Pipeline would require a five-foot permanent easement and a minimum of five-foot of cover above the top of the pipe within City of Stockton streets, a temporary construction easement up to 50 feet in width will be necessary for construction. The KMP branch connection pipeline to the TST would be installed below ground except for some parts of the TST and Tank Farm. Conventional trenching of the pipeline would occur along Navy Drive to the rail road spur that makes up the northern border of the TST. At the railroad spur, boring and drilling would be the primary method of placing the pipeline underground.

We understand a pipeline seismic design using finite element analyses will be done by others to predict the performance of the pipelines with regards to potential seismic activity.

SITE IMPROVEMENTS

Containment Soil and Berms
The proposed Project area would be constructed to include a layer of substantially impermeable soil, in compliance with U. S. Environmental Protection Agency (EPA) (40 CFR 112) regulations. Earthen berms would provide the required secondary containment capacity. The proposed Project area would be accessible by means of over-the-containment-berm ramps. Masonry walls would be constructed to provide secondary containment if needed.

Steel Structures
The steel structures included in the TST design include: equipment skids and racks, pipe supports, stiles, loading racks and the loading rack canopy.

Pipeways will be constructed to support above grade piping from the incoming product distribution manifold to the storage tanks, from the storage tanks to transfer pumps to the truck loading racks, from ethanol off-loading to ethanol storage, to and from the VRU and to and from additive storage. The Truck Loading Rack (TLR) will be constructed to facilitate loading of tanker trucks with trailers. The prefabricated steel canopy will be constructed to support an overhead pipeway. Each loading bay will be constructed of steel and will include product metering and control equipment and loading arms.

Roads
Entry to the TST will be from the Pacific Ethanol Entry Roadway off of Navy Drive. A new road will be required with an intersection near the entrance security gate for Pacific Ethanol. The entry road to the TST will be located along the western boundary of the Pacific Ethanol Lease. The rail loop borders the entire northwest, north, and north east portions of the TST project area.

The new access road along the west portion of the Pacific Ethanol Lease boundary will provide vehicle access and egress by means of a driveway to a parking lot for passenger vehicles. Fuel transport vehicles will access and leave the TST through dedicated, gated, traffic controlled driveways.

A road will be constructed around the storage tank farm. The road will be used as a fire access road and for maintenance purposes. This road will be paved with crushed rock.

The grade of the finished site will be generally sloped from west to east. The trees will be planted along the new access road to the TST. The site will be secured by means of a 6-foot high chain link fence with three strands of barbed wire on top.

1.2 Scope of Services

To accomplish this work, we provided the following services:

- Exploration of subsurface conditions by drilling three borings and retrieving soil samples for observation and laboratory testing. Fifteen Cone Penetration Tests (CPTs) were also advanced.
- Evaluation of the physical and engineering properties of the subsurface soils by visually classifying the samples and performing various laboratory tests on selected samples.
- Correlation of CPT interpretations with visual classification and laboratory testing on samples collected from our borings.
- Engineering analysis to evaluate structure foundations, site earthwork, and slabs-on-grade.
- Preparation of this report to summarize our findings and to present our conclusions and recommendations.

2.0 SITE CONDITIONS

2.1 Site Reconnaissance

The TST will be located in the Port of Stockton in the presently semi-improved section of the Port north of the Pacific Ethanol Plant. The site covers approximately 17+/- acres. The site is located at 3040 Navy Drive in Stockton at the southwest corner of the intersection of Navy Drive and West Washington Street. The site is bordered by the existing Pacific Ethanol refinery to the south and west and a swale and levee section topped with railroad tracks to the north and east of the site. The proposed project and the Pacific Ethanol site are encircled by a rail spur that services Pacific Ethanol corn unit trains. The project site is higher in elevation by approximately 5 to 10 feet than the surrounding area and was initially created by dredge material disposal. To the north and west of the proposed project site is the City of Stockton Police Training Facility and Pistol Range. Beyond the San Joaquin River to the northwest of the proposed project site is Rough and Ready Island. To the southeast of the proposed project site is the City of Stockton storm water retention basin and Sewage Treatment Plant. North of the proposed project site are terminals for NuStar and Tesoro.

Our Staff Engineer performed a reconnaissance of the site on August 11, 2011. The relatively level site is gently sloping to the north with approximately 5 feet of topographic relief. At the time of our exploration program the site was vacant with low standing vegetation, with the exception of large equipment being stored in the northwest area of the site. The bounding swale is approximately 5 feet below the average site elevation and the access road is roughly at the same elevation as the site. The top of the levee and railroad tracks are approximately 6 to 8 feet above the swale and 1 to 3 feet above the site and access road. The San Joaquin River can be encountered to the north, west and south of the site within approximately a quarter mile. A utility corridor runs through the site from east to west and enters the Pacific Ethanol refinery at the northeastern corner. Site photographs are shown in Figures 3A, 3B, and 3C.

Based on the topographic site plan prepared by Vertical Mapping Resources, Inc. dated August 10, 2011, the majority of the site ranges in elevation from approximately 16 to 19 feet (North American Vertical Datum of 1988 (NAVD88)). Please note that the elevations for this investigation are based on the City of Stockton Benchmark Number 306, which is based on the NAVD88.

2.2 Previous Studies

Kleinfelder (1990)

A previous geotechnical study referenced above was performed by Kleinfelder for a proposed linerboard mill facility including large tanks at the subject site. Based on our review of the report, the site appears to have been previously used as a dredge and sludge storage area for the City and Port of Stockton with the more sandy areas excavated for fill. They completed 22 borings to depths of 30 to 80 feet below the ground surface. Their exploratory borings generally encountered between 7 and 14 feet (to elevations 0 and 4 feet (datum unknown)) of generally loose, compressible dredge-fill material at the surface. In addition large shrinkage cracks were observed at the surface. Below the fill, 4 to 7 feet of compressible organic silty clay and clayey silt was encountered, and was underlain by clay and sand to a depth of 80 feet, the maximum depth explored. Clean sand layers were encountered at depths of approximately 30 feet and between 45 and 50 feet below the ground surface. Groundwater was generally encountered between 14 and 22 feet below the previous existing ground surface elevation, which corresponds to an elevation of -2 to -5 feet (datum unknown). Kleinfelder reported measured settlement of a 120-foot-diameter tank in the area settled at 4 inches. The tank was supported on 3 feet of engineered fill and 6 inches of aggregate base.

The report concluded that heavy structures should be supported on driven or cast-in-place pile foundations, with independent slabs-on-grade supported on 5 feet of compacted, engineered fill and that the lighter structures should be supported on conventional footing foundations founded on 5 feet of compacted, engineered fill. Up to 4 inches of total settlement was estimated and dynamic ground improvement was recommended if differential settlement between floor slabs and individual columns was considered unacceptable.

Professional Service Industries, Inc. (July 24, 2006)

A preliminary geotechnical report and a seismic site hazard report referenced above were performed by Professional Service Industries, Inc. for the proposed Pacific Ethanol Facility at the subject site. During the investigation two-inch-wide and twelve-inch-deep shrinkage cracks were observed at the site. Based on our review of the study, the site had been filled with sediment consisting of about 10 feet of dredge spoils that included organics and refuse the previous year and PSI, Inc. expected that approximately 10 feet of fill would be removed from the site for construction of the Pacific Ethanol Plant. Based on PSI observations made during their subsurface investigation, approximately 10 to 15 feet of fill soils were present at the site. Seven borings were completed between 30 and 63 feet below the ground surface. Their exploratory borings generally encountered clays and silts with interbedded layers of sand. The soils encountered generally consisted of soft to firm silts and clays, and very loose to loose sands in the upper 30 to 40 feet. Below this depth, stiff to very stiff silts and clays, and medium dense to dense sands were encountered to a depth of 63 feet, the maximum depth explored. Groundwater was generally encountered between 14 and 17 feet below the previous existing ground surface elevation, which corresponds to an elevation of 5.2 to 8.8 feet mean sea level (msl).

The report concluded that lightly loaded structures (less than 200 kips) could be supported on conventional shallow spread footings following ground improvements and soil densification. The lightly loaded areas should be excavated to a minimum of 10 feet below the bottom of the footings and replaced as engineered fill. The heavier foundation loads could be supported by either Rammed Aggregate Piers, drilled piers, or auger cast piles that would extend into the denser subsurface soil stratum. Approximately 2 to 3 inches of total settlement was estimated, with differential settlements on the order of half of the total settlements.

Professional Service Industries, Inc. (February 5, 2007)

A supplemental letter was performed to provide lime stabilization preliminary geotechnical recommendations for the previous PSI (2006) investigation. Due to the clayey soil conditions previously encountered at the site, in lieu of the previous recommendations provided, lime stabilization was provided as an option for stabilizing the saturated clays by mixing them with lime. It was recommended that the upper 36 inches of subgrade within the proposed roadways and parking lot areas be mixed with dolomitic or high calcium quick lime and that the soils are compacted as engineered fill.

Professional Service Industries, Inc. (February 26, 2007)

A supplemental investigation was performed to provide additional geotechnical recommendations for the previous PSI (2006) investigation. Additional exploration consisting of a total of 10 CPTs was performed for preparing recommendations for site preparation and foundation design as the proposed development was moved southeast from the proposed original location described in the previous (2006) report. Based on the CPT data, similar subsurface soils were encountered, which consisted of generally sandy silts and clays along with silty sands at greater depths. The soils were described as soft to stiff and loose to dense. Approximately 2 to 4 inches of liquefaction settlement was estimated, with differential settlements on the order of about half of the total

settlements. It was concluded that all geotechnical recommendations previously made remained valid.

2.3 Exploration Program

Subsurface exploration was performed on August 10, 11, and 12, 2011, using conventional, truck-mounted hollow-stem auger and Cone Penetration Test (CPT) equipment to investigate subsurface soils. Three exploratory borings were advanced to depths ranging from 22 to 65 feet. Seventeen CPTs were advanced to depths ranging from 35 to 115½ feet. CPT-1, 3, 5, 6, 12, and 15 encountered a very dense layer of sand at a depths of approximately 70, 70, 71, 58, 99, and 77 feet, respectively, and could not be advanced deeper.

Our CPTs were permitted and backfilled in accordance with San Joaquin County Environmental Health Department requirements (permit numbers 63172 and 63170). The approximate locations of the borings and CPTs are shown on the Site Plan, Figure 2. Cross sections depicting the general subsurface conditions are shown in Figures 4A and 4B. Logs of our borings and CPTs and details regarding our field investigation are included in Appendix A. Our laboratory tests are discussed in Appendix B and field exploration elevations and latitude/longitude measurements are included in appendix C.

2.4 Subsurface Conditions

Our exploratory borings encountered approximately 6 to 12 feet of undocumented fill at the site. The fill consisted of medium stiff to hard lean clay or silt with varying amounts of sands or loose clayey sand. Below the fill was a layer of medium stiff to stiff lean clay with varying amount of sand and loose silty sand to approximately 16 to 19 feet below the ground surface or elevation 2 to -1 (NAVD88). This layer is likely to also be dredged fill placed before 1990. Between the depths of 16 and 22 feet a soft to medium stiff, compressible fat clay layer was present in all our borings. The fill and fat clay layer have dry densities ranging from 50 to 111 pounds per cubic foot. Below 22 feet medium stiff to hard lean clay with varying amounts of sand/silt and loose to dense sand with varying amounts of fines were encountered to 65 feet. The sand layers ranged in fine content from 5 to 42 percent passing the number 200 sieve.

Soils encountered in our CPTs were generally interpreted to include interbedded layers of silty clay, clayey silt, sandy silt, and clay to a depth of approximately 50 feet, with some interbedded layers of silty sand, sand, and gravelly sand. Undrained shear strengths were interpreted to be between 200 psf to more than 4,500 psf, indicating soft to hard silty and clayey soils. In general a sand layer was encountered between a depth of 30 and 35 feet across the site. The granular interbedded layers encountered were interpreted as medium dense to very dense. Below the depth of approximately 50 feet, silty sand, sand, and gravelly sand was generally encountered to depths ranging from 80 to 100 feet, with some interbedded layers of silty clay, clayey silt, sandy silt, and clay. The granular layers were interpreted as medium dense to very dense. Below the depth of 80 to 100 feet, very stiff to hard silty and clayey soils were encountered to a depth of approximately 115½ feet, the maximum depth explored. Cross sections depicting the general subsurface conditions are shown in Figures 4A and 4B.

The CPTs and borings above were generally consistent with the previous conditions encountered in the 1990 investigation by Kleinfelder and 2006 and 2007 investigations performed by PSI at the site.

Three Plasticity Index (PI) tests were performed on representative near surface clayey soil samples in borings EB 1, 2, and 3, at approximately 4, 1½, and 4 feet, respectively. The test results exhibited PI's of 18, 12, and 20, which indicates low to moderate plasticity and expansion potential of the near surface clayey soils at the site.

2.5 Ground Water

Free groundwater was encountered during our subsurface exploration in borings EB-1 and EB-2 at a depth of 29½ feet below the ground surface. Based on pore pressure dissipation measurements taken CPT-12 and CPT-15, groundwater was encountered in our CPTs at depths of approximately 12 and 16 feet below grade (elevations 4 and 0 feet (NAVD88)), respectively. Based on the previous investigations provided, groundwater was encountered at elevations between -2 to -5 feet datum unknown (Kleinfelder, 1990), and 5.2 to 8.8 feet msl (PSI, 2006).

Based on the above information, we estimated a design ground water depth of 7 feet below the ground surface, which corresponds to elevations ranging from approximately 9½ to 12½ feet (NAVD88) for our liquefaction analysis. All borings and CPTs were backfilled immediately after drilling. Fluctuations in the level of the ground water may occur due to variations in rainfall, underground drainage patterns, regional influence, and other factors not evident at the time our measurements were made.

3.0 GEOLOGIC HAZARDS

A brief qualitative evaluation of geologic hazards was made during this investigation. Our comments concerning these hazards are presented below.

3.1 Fault Rupture

Northern California is one of the most seismically active regions in the United States; however, the site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone (known formerly as a Special Studies Zone). No known surface expression of active faults is believed to cross the site. Fault rupture through the site, therefore, is not anticipated.

3.2 Maximum Estimated Ground Shaking

Current practice indicates a peak ground surface acceleration of 0.30g, which is equal to $S_{DS}/2.5$ as discussed in Item 23 of the California Geological Survey Note 48, to be expected to occur at the site. Previously a Seismic Site Hazard Study (PSI, 2006) was performed for the site, which determined a peak ground acceleration of 0.27g.

3.3 Future Earthquake Probabilities

Although research on earthquake prediction has greatly increased in recent years, seismologists cannot predict when or where an earthquake will occur. The U.S. Geological Survey's Working Group on California Earthquake Probabilities (WGCEP, 2007) estimates there is a 63 percent chance of at least one magnitude 6.7 or greater earthquake occurring in the San Francisco Bay region between 2007 and 2037. This result is an important outcome of WGCEP's work because any major earthquake can cause damage throughout the region.

The 1989 Loma Prieta earthquake demonstrated this potential by causing severe damage in Oakland and San Francisco, more than 50 miles from the fault epicenter. Although earthquakes can cause damage at a considerable distance, shaking will be very intense near the fault rupture. Therefore, earthquakes located in urbanized areas of the region have the potential to cause much more damage than the 1989 Loma Prieta earthquake.

3.4 Liquefaction

3.4.1 General Background

During cyclic ground shaking, such as during earthquakes, cyclically induced stresses may cause increased pore water pressures within the soil matrix, resulting in liquefaction. Liquefied soil may lose shear strength that may lead to large shear deformations and/or flow failure under moderate to high shear stresses, such as beneath foundations or sloping ground (Youd et. al, 2001), and in many ways may behave more like a liquid than a solid. Liquefied soil can also settle (compact) as pore pressures dissipate following an earthquake. Limited field data is available on this subject; however, in some cases, settlement on the order of 2 to 3 percent of the thickness of the liquefied zone has been measured.

Soils most susceptible to liquefaction are loose to moderately dense, saturated non-cohesive soils with poor drainage, such as sands and silts with interbedded or capping layers of relatively low permeability soil.

3.4.2 Analysis and Results of Current Explorations

Based on our explorations and previous explorations, a design ground water level at 7 feet below the existing site grade was used for our liquefaction analysis. As discussed in the subsurface description above, several sand and silt layers were encountered below the design ground water depth. These layers were evaluated to assess liquefaction potential and the effects liquefaction may have on the proposed development. No liquefaction analyses were performed on layers above the design ground water depth.

Our liquefaction analysis followed the methods presented by the 1998 NCEER Workshops (Youd et al., 2001) in accordance with guidelines set forth in the CGS Special Publication 117 (2008). The NCEER methods for CPT analysis update simplified procedures presented by Seed and Idriss (1971). In broad terms, these methods are used to calculate a factor of safety against liquefaction triggering by comparing the resistance of the soil to cyclic shaking to the seismic demand that can be caused during seismic events.

The resistance to cyclic shaking is quantified by the Cyclic Resistance Ratio (CRR), which is a function of soil density, layer depth, ground water depth, earthquake magnitude, and soil behavior. Our CPT tip pressures were corrected for the overburden and fines content. The CPT method utilizes the soil behavior type index (I_C) and the exponential factor "n" applied to the Normalized Cone Resistance "Q" to evaluate how plastic the soil behaves. The Cyclic Stress Ratio (CSR) is used to quantify the stresses that are anticipated to develop during cyclic shaking. The formula for CSR is shown below:

$$CSR = 0.65\ (a_{max}/g)(\sigma_{vo}/\sigma'_{vo})r_d$$

Where a_{max} is the peak horizontal acceleration at the ground surface generated by an earthquake, g is the acceleration of gravity, σ_{vo} and σ'_{vo} are total and effective overburden stresses, respectively, and r_d is a stress reduction coefficient. We evaluated the liquefaction potential of the loose to medium dense sand and silt strata encountered below the design ground water depth using a peak ground acceleration of 0.3, which is equal to $S_{DS}/2.5$ as discussed in item 23 of the CGS – Note 48.

The factor of safety (FS) against liquefaction can be expressed as the ratio of the CRR to CSR. If the FS for a soil layer is less than 1.0, the soil layer is considered liquefiable during a moderate to large seismic event.

$$FS = CRR/CSR$$

Soils that have an I_C greater than approximately 2.6 or corrected CPT tip resistance greater than 160 tons per square foot (tsf) are considered either too plastic or too dense to liquefy. Such soil layers have been screened out of analysis and are not presented below. A summary of our CPT analysis is presented in table 1 below.

Table 1. Results of Liquefaction Analyses – CPT Method

CPT Number	Depth to Top of Sand/Silt Layer (feet)	Layer Thickness (feet)	I_C	$*q_{C1N}$ (tsf)	Factor of Safety	Potential for Liquefaction	Estimated Total Settlement (in.)
CPT-1	48.1	4.2	2.3	98.5	0.85	Likely	0.9
	53.1	0.5	2.0	105.1	0.95	Likely	0.1
	53.7	0.7	2.2	115.5	1.1	Potential	0.1
						Total =	**1.1**
CPT-2	57.7	0.3	2.2	110.4	1.09	Potential	0.1
	75.2	0.3	2.3	92.7	0.96	Likely	0.1
						Total =	**0.2**
CPT-3	18.7	0.8	2.4	79.1	0.62	Likely	0.2
	46.9	1.7	2.2	89.0	0.70	Likely	0.5
	48.9	0.3	2.4	85.7	0.69	Likely	0.1
	49.5	1.7	2.2	71.7	0.56	Likely	0.6
	52.6	1.5	2.2	89.9	0.76	Likely	0.4
	54.4	0.7	2.3	114.3	1.12	Potential	0.1
	55.4	0.8	2.1	103.8	0.96	Likely	0.1
	57.5	0.8	2.4	89.4	0.80	Likely	0.2
						Total =	**2.2**
CPT-4	48.0	0.2	2.5	96.3	0.78	Likely	0.1
	48.5	7.0	2.1	101.4	0.89	Likely	1.3
	56.3	1.0	2.2	107.9	1.04	Potential	0.1
	59.9	3.4	2.0	96.6	0.87	Likely	0.8
	68.0	0.3	2.3	97.9	1.00	Potential	0.1
	74.8	1.7	1.9	86.9	0.90	Likely	0.4
	77.5	0.3	2.1	93.1	0.97	Likely	0.1
	99.5	0.5	2.1	85.9	0.96	Likely	0.1
						Total =	**3.0**
CPT-5	48.1	1.5	2.4	108.0	0.96	Likely	0.2
	49.8	0.7	2.5	93.0	0.76	Likely	0.2
	52.2	0.8	2.2	105.9	0.96	Likely	0.1
	53.2	0.5	1.9	105.6	0.96	Likely	0.1
	57.7	0.3	2.3	106.4	1.02	Potential	0.1
	58.2	0.8	2.3	101.6	0.96	Likely	0.1
	61.1	0.8	2.2	112.3	1.17	Potential	0.1
	63.1	0.8	2.3	93.3	0.88	Likely	0.2
						Total =	**1.1**
CPT-6	9.4	0.5	2.4	106.7	1.12	Potential	0.1
	48.3	0.3	2.5	101.3	0.84	Likely	0.1
	48.8	0.7	2.5	106.1	0.92	Likely	0.1
	51.7	0.8	2.4	97.2	0.84	Likely	0.2
	52.9	0.7	2.1	111.4	1.05	Potential	0.1
	55.1	0.3	1.8	113.1	1.11	Potential	0.1
	55.8	0.5	1.7	110.8	1.07	Potential	0.1
						Total =	**0.8**
CPT-7	47.1	0.7	2.4	107.9	0.94	Likely	0.1
	48.0	0.3	2.4	111.8	1.0	Potential	0.1
	49.0	0.5	2.4	111.8	1.01	Potential	0.1
	50.3	0.8	2.3	108.2	0.98	Likely	0.1
						Total =	**0.4**
CPT-8	56.3	0.5	2.0	110.5	1.08	Potential	0.1
	57.3	0.5	2.2	111.2	1.10	Potential	0.1
						Total =	**0.2**

Table 1 (Continued). Results of Liquefaction Analyses – CPT Method

CPT Number	Depth to Top of Sand/Silt Layer (feet)	Layer Thickness (feet)	I_C	$*q_{C1N}$ (tsf)	Factor of Safety	Potential for Liquefaction	Estimated Total Settlement (in.)
CPT-10	13.1	0.7	2.5	107.4	1.0	Potential	0.1
	45.4	1.5	2.4	86.1	0.66	Likely	0.5
	47.1	0.8	2.4	85.9	0.68	Likely	0.3
	48.5	1.7	2.4	86.9	0.69	Likely	0.5
	50.7	0.3	2.2	79.8	0.63	Likely	0.1
	52.7	1.4	2.2	97.8	0.87	Likely	0.3
						Total =	**1.8**
CPT-11	40.9	1.0	2.4	110.4	0.93	Likely	0.2
	46.6	1.0	2.4	108.6	0.94	Likely	0.1
	48.1	0.7	2.3	112.4	1.0	Potential	0.1
	60.0	0.5	2.3	99.8	0.94	Likely	0.1
	60.7	0.5	2.2	103.9	1.02	Potential	0.1
						Total =	**0.6**
CPT-12	7.2	0.3	2.6	86.6	0.92	Likely	0.1
	8.4	0.3	2.2	93.8	1.00	Potential	0.1
	10.0	0.7	2.6	91.9	0.86	Likely	0.2
	14.6	0.3	2.5	89.1	0.73	Likely	0.1
	44.9	0.2	2.5	60.5	0.46	Likely	0.1
	49.0	0.3	2.4	80.3	0.62	Likely	0.1
	50.7	0.3	2.3	57.4	0.48	Likely	0.2
	51.7	2.2	2.2	89.9	0.75	Likely	0.6
	54.1	0.3	2.4	65.2	0.54	Likely	0.1
	55.1	1.9	2.2	75.2	0.64	Likely	0.6
	59.4	0.5	2.0	101.9	0.97	Likely	0.1
	65.6	1.5	2.1	87.2	0.83	Likely	0.4
	68.7	1.7	1.9	99.7	1.06	Potential	0.2
	83.8	0.3	2.2	93.3	1.02	Potential	0.1
						Total =	**3.0**
CPT-13	7.3	0.7	2.6	100.2	1.12	Potential	0.1
	8.9	0.3	2.6	98.4	1.01	Potential	0.1
	42.4	0.5	2.4	107.1	0.88	Likely	0.1
	44.4	2.0	2.1	104.2	0.87	Likely	0.4
	48.3	1.0	2.3	111.4	1.01	Potential	0.1
	54.8	0.7	1.8	108.0	1.02	Potential	0.1
	63.8	1.2	2.1	100.7	1.00	Potential	0.2
	74.0	0.8	2.0	103.0	1.12	Potential	0.1
						Total =	**1.2**
CPT-14	26.4	0.8	2.2	116.3	1.00	Potential	0.1
	28.1	0.5	2.2	121.0	1.10	Potential	0.1
	35.3	2.3	2.2	92.8	0.70	Likely	0.7
	49.5	9.7	2.2	107.7	1.01	Potential	1.3
	62.9	0.5	1.7	105.5	1.06	Potential	0.1
	78.6	0.3	2.3	91.7	0.96	Likely	0.1
	91.8	1.0	2.1	91.5	1.02	Potential	0.1
						Total =	**2.5**

Table 1 (Continued). Results of Liquefaction Analyses – CPT Method

CPT Number	Depth to Top of Sand/Silt Layer (feet)	Layer Thickness (feet)	I_C	$*q_{C1N}$ (tsf)	Factor of Safety	Potential for Liquefaction	Estimated Total Settlement (in.)
CPT-15	7.1	1.1	2.2	94.6	1.03	Potential	0.1
	10.7	1.0	2.2	97.3	0.91	Likely	0.2
	43.5	0.8	2.4	103.2	0.84	Likely	0.2
	44.6	0.5	2.5	99.5	0.80	Likely	0.1
	45.9	0.2	2.5	77.1	0.57	Likely	0.1
	46.4	1.7	2.4	86.4	0.67	Likely	0.5
						Total =	**1.2**
CPT-16	10.5	0.5	2.6	83.7	0.77	Likely	0.1
	15.9	0.3	2.6	102.8	0.89	Likely	0.1
	27.1	0.3	2.5	72.1	0.50	Likely	0.1
	27.9	0.3	2.5	97.0	0.73	Likely	0.1
	28.4	0.2	2.4	92.1	0.66	Likely	0.1
	28.9	0.8	2.3	78.5	0.55	Likely	0.3
	30.0	2.1	2.1	104.8	0.82	Likely	0.5
	34.6	1.2	2.3	97.1	0.74	Likely	0.3
	36.1	4.3	2.1	67.6	0.50	Likely	1.7
	40.7	0.8	2.1	111.1	0.93	Likely	0.1
	43.7	2.5	2.2	96.8	0.78	Likely	0.6
	46.4	1.2	2.1	117.1	1.09	Potential	0.1
	50.0	0.8	2.1	114.7	1.08	Potential	0.1
	52.6	1.5	1.7	97.6	0.85	Likely	0.3
						Total =	**4.5**

* CPT tip pressure corrected for overburden and fines content

The accepted method available to determine liquefaction settlement is applicable to only the upper 50 feet of soil. Because we do not have a method to accurately calculate the settlement below 50 feet, the liquefaction settlement calculated below 50 feet in Table 1 is an estimate based on the same method used for the upper 50 feet. However, in our opinion deep liquefaction could occur and might cause loss of soil strength but the settlement would likely be more uniform across the site.

In general, there appears to be a fairly consistent liquefiable layer across the site from approximately 47 to 58 feet below the ground surface. In addition CPT-16 has a fairly thick liquefiable layer from approximately 30 to 54 feet.

Our analyses indicate that several sand layers below the design ground water depth may theoretically liquefy resulting in about ¼ to 4 inches of total settlement beneath the proposed tank structures. However, the total liquefaction settlement is approximately 2 inches in the upper 50 feet, except for the area around CPT-16. Volumetric change and settlement were estimated using the Ishihara and Yoshimine (1990) method. As discussed in the Southern California Earthquake Center report (SCEC, 1999), differential movement for level ground deep soil sites will be on the order of half the total estimated settlement.

We estimate differential settlements from liquefaction for shallow foundations and site improvements will be on the order of up to 1 inch in 50 feet. However because of the fairly thick shallow liquefiable layer found in CPT-16, we estimate settlement form liquefaction for shallow foundations and site improvements will be on the order of 2 inches in 50 feet for an approximately

50 foot radius around CPT-16. A detailed discussion of estimated settlements is presented in the "Foundations" section of this report.

3.4.3 Potential for Ground Rupture/Sand Boils

The methods of analysis used to estimate the total settlement assume that there is no possibility of surface ground rupture. In order for liquefaction induced sand boils or fissures to occur, the pore water pressure induced within the liquefied strata must exert a large enough force to break through the surface layer. As shown in Tables 1 above, we encountered some shallow (less than 10-feet deep) potentially liquefiable soils layers in CPT- 6, 12, 13, and 15; these relatively thin layers are up to about 1 feet thick and are capped by 7 feet of non-liquefiable material. Based on work by Youd and Garris (1995), there is adequate non-liquefiable material capping the site to prevent ground rupture, and that the above liquefaction-induced settlement estimates are reasonable.

3.5 Dry Seismic Settlement

If near-surface soils vary in composition both vertically and laterally, strong earthquake shaking can cause non-uniform densification of loose to medium dense cohesionless soil strata. This results in movement of the near-surface soils. Our explorations encountered possibly 16 to 19 feet of undocumented fill at the site. The fill consisted of medium stiff to hard lean clay or silt with varying amounts of sands or loose sands. Because the fill contains loose sand layers and is variable across the site, there is a potential for total and differential settlement of non-saturated sand layers. Please refer the Conclusions and Development Considerations section of this report for recommendations regarding the undocumented fill at the site.

3.6 Lateral Spreading

Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying alluvial material toward an open or "free" face such as an open body of water, channel, or excavation. In soils this movement is generally due to failure along a weak plane, and may often be associated with liquefaction.

The San Joaquin River circles the site on the north, west, and south. However the River is generally greater than 200 feet from the site boundary and the shallow liquefiable layers are not consistent throughout the site. Therefore, the probability of lateral spreading occurring at the site during a seismic event is relatively low.

4.0 CORROSION EVALUATION

To evaluate the corrosion potential of the subsurface soils at the site, we submitted six samples collected during our subsurface investigation to an analytical laboratory for pH, resistivity, soluble sulfate and chloride content testing. The results of these tests are summarized in Table 2 below.

Table 2. Results of Corrosivity Testing

Sample	Depth (feet)	Chloride (mg/kg)	Sulfate (mg/kg)	pH	Resistivity (ohm-cm)	Estimated Corrosivity Based on Resistivity	Estimated Corrosivity Based on Sulfates
EB-1, 1A	1.5	7	321	7.7	1,104	Severely	Negligible
EB-1, 3A	5.5	94	505	5.7	712	Very Severely	Negligible
EB-2, 2A	3.5	75	1,129	4.9	904	Severely	Moderate
EB-2, 4A	9.0	16	111	6.0	4,099	Moderately	Negligible
EB-3, 2A	3.5	30	183	5.7	1,374	Severely	Negligible
EB-3, 3A	5.5	34	<5	6.4	2,277	Severely	Negligible

Notes: 1mg/kg = milligrams per kilogram.

Many factors can affect the corrosion potential of soil including soil moisture content, resistivity, permeability and pH, as well as chloride and sulfate concentration. In general, soil resistivity, which is a measure of how easily electrical current flows through soils, is the most influential factor. Based on the findings of studies presented in ASTM STP 1013 titled "Effects of Soil Characteristics on Corrosion" (February, 1989), the approximate relationship between soil resistivity and soil corrosiveness was developed as shown in Table 3 below.

Table 3. Relationship Between Soil Resistivity and Soil Corrosivity

Soil Resistivity (ohm-cm)	Classification of Soil Corrosiveness
0 to 900	Very Severely Corrosive
900 to 2,300	Severely Corrosive
2,300 to 5,000	Moderately Corrosive
5,000 to 10,000	Mildly Corrosive
10,000 to >100,000	Very Mildly Corrosive

Chloride and sulfate ion concentrations, and pH appear to play secondary roles in affecting corrosion potential. High chloride levels tend to reduce soil resistivity and break down otherwise protective surface deposits, which can result in corrosion of buried metallic improvements or reinforced concrete structures. Sulfate ions in the soil can lower the soil resistivity and can be highly aggressive to Portland cement concrete by combining chemically with certain constituents of the concrete, principally tricalcium aluminate. This reaction is accompanied by expansion and eventual disruption of the concrete matrix. Potentially high sulfate content could also cause corrosion of the reinforcing steel in concrete. The 1997 Uniform Building Code (UBC) Table No. 19-A-4 provides requirements for concrete exposed to sulfate-containing solutions as summarized in Table 4.

Table 4. Relationship Between Sulfate Concentration and Sulfate Exposure (UBC Table No. 19-A-4)

Water-Soluble Sulfate (SO_4) in soil, ppm	Sulfate Exposure
0 to 1,000	Negligible
1,000 to 2,000	Moderate[1]
2,000 to 20,000	Severe
over 20,000	Very Severe

[1]= seawater

Acidity is an important factor of soil corrosivity. The lower the pH (the more acidic the environment), the higher will the soil corrosivity be with respect to buried metallic structures. As soil pH increases above 7 (the neutral value), the soil is increasingly more alkaline and less corrosive to buried steel structures due to protective surface films which form on steel in high pH environments. A pH between 5 and 8.5 is generally considered relatively passive from a corrosion standpoint.

As shown in Table 2, soil resistivity results ranged from 712 to 4,099 ohm-centimeters. Based on these results and the resistivity correlations presented in Table 3, the corrosion potential to buried metallic improvements may be characterized as moderately to very severely corrosive. We recommend that a corrosion protection engineer be consulted about appropriate corrosion protection methods for buried metallic materials.

Based on our previous experience and Table 4, (No. 19-A-4 of the UBC), in our opinion, sulfate exposure to Portland cement concrete (PCC) may be considered as negligible to moderate for the native subsurface materials sampled. We recommend that a corrosion protection engineer be consulted about appropriate corrosion protection methods for buried concrete.

5.0 CONCLUSIONS AND DEVELOPMENT CONSIDERATIONS

5.1 Conclusions

From a geotechnical engineering viewpoint, the proposed structures may be constructed as planned, provided design and construction is performed in accordance with the recommendations presented in this report.

The primary geotechnical and geologic concerns at the site are as follows:

- Compressible Soil
- Undocumented Fill
- Strong Seismic Shaking
- Potential for Liquefaction-Induced Total and Differential Settlement
- Shallow Ground Water
- Moderately Expansive Clays
- Corrosion Potential of the Near-Surface Soils

We have prepared a brief description of the issues and present typical approaches to manage potential concerns associated with the long-term performance of the development.

5.1.1 Compressible Soil

The undocumented dredge fill and organic fat clay layers at the site have zones of relatively soft and loose soils which are compressible. Dry densities for these layers are as low as 50 pounds per cubic foot. Because the compressible soil extends to approximately 22 feet below the ground surface, we recommend the tanks be supported on deep foundations. The site buildings, pipelines, and site improvements may be supported on engineered fill. We recommend flexible utility and piping connections with emergency shut-off valves. Please refer to the following sections for more detailed recommendations.

5.1.2 Undocumented Fill

Our exploratory borings encountered approximately 6 to 12 feet of undocumented fill at the site. The fill consisted of medium stiff to hard lean clay or silt with varying amounts of sands or loose clayey sand. Below the fill was a layer of medium stiff to stiff lean clay with varying amount of sand and loose silty sand to approximately 16 to 19 feet below the ground surface or elevation 2 to -1 (NAVD88). This layer is likely to also be dredged fill placed before 1990.

Undocumented fill contains loose sand layers and is highly variable and would not adequately support the proposed structures. Therefore, we recommend the tanks be supported on piles and we recommend that the upper portion of the undocumented fill material be removed and replaced with compacted fill for the site buildings, pipelines, and site improvements. Detailed recommendations for mitigating undocumented fills are provided in Removal of Undocumented Fill Section below.

If previous compaction and foundation observations records during the construction of the Ethanol Plant are discovered we can review and revise our recommendations.

5.1.3 Strong Seismic Shaking

We recommend that, at a minimum, the proposed structures be designed in accordance with the seismic design criteria presented in Table 5.

5.1.4 Liquefaction-Induced Total and Differential Settlement

As previously discussed, our analyses indicate that some of the sand and silt layers encountered during our exploration may theoretically liquefy and result in post-seismic total and differential settlement. Therefore, foundations should be designed to resist or accommodate this settlement. A discussion regarding settlement is presented in the "Foundations" section of this report.

5.1.5 Shallow Ground Water

As discussed in Section 2.4, ground water was encountered in our CPTs at depths of 12 and 16 feet below the existing ground surface, which corresponds to ground water elevations ranging from 4 to 0 feet (NAVD88). The contractor should be aware that excavations/trenches extending near the ground water level may need to be stabilized and/or dewatered to facilitate placement of structures and/or placement and compaction of fill.

5.1.6 Moderately Expansive Clays

To reduce the potential for damage to the planned site improvements due to the presence of moderately expansive surficial soils, we recommend the building slab-on-grade and exterior concrete flatwork be supported on a layer of non-expansive fill. Detailed recommendations are presented in the following sections of this report.

5.1.7 Corrosion Potential of the Near-Surface Soils

As discussed above, the corrosion potential to buried metallic improvements and concrete constructed within the surficial soils may be characterized as moderately to very severely corrosive. A qualified corrosion engineer should be contacted to provide specific recommendations regarding corrosion protection for buried metal pipe, buried metal pipe-fittings, or concrete.

5.2 Plans, Specifications, and Construction Review

Because subsurface conditions may vary from those predicted by relatively small-diameter, widely-spaced explorations, and to check that our recommendations have been properly implemented, we recommend we be retained to 1) review final construction plans and specifications and 2) observe the earthwork and foundation construction. Also, geotechnical conditions can be affected by the construction process. For the above reasons, our geotechnical recommendations are contingent upon our firm providing geotechnical observation and testing services during construction.

6.0 EARTHWORK

6.1 Clearing and Site Preparation

The site should be cleared of all surface and subsurface improvements to be removed and deleterious materials including existing slabs, irrigation lines, pavements, debris, designated trees, shrubs, and associated roots. Abandonment of existing buried utilities is discussed below. Excavations extending below the planned finished site grades should be cleaned and backfilled with suitable material compacted as recommended in the "Compaction" section of this report. We recommend that the backfilling be carried out under our observation.

After clearing, any vegetated areas should be stripped to sufficient depth to remove all surface vegetation and topsoil containing greater than 3 percent organic matter by weight. We estimate that a stripping depth of approximately 3 inches would be required. The actual stripping depth required depends on site usage prior to construction and should be established in the field by us at the time of construction. The stripped materials should be removed from the site or may be stockpiled for use in landscaped areas, if desired.

6.2 Removal of Undocumented Fill

Our exploratory borings encountered approximately 6 to 12 feet of undocumented fill at the site with up to 19 feet of dredge fill that has been present on the site for over 20 years. Undocumented fill is highly variable and would not adequately support the proposed structures. Therefore, we recommend the tanks be supported on piles and we recommend that the upper portion of the undocumented fill material be removed and replaced with compacted fill for the site buildings, pipelines, and site improvements.

Fill removal should extend at least five feet below building shallow foundations and at least two feet below pavement subgrade and site improvements. In addition, the fill removal should extend at least 5 feet laterally beyond the outside edge of buildings or site improvements before sloping.

Side slopes of fill excavations should be sloped at inclinations no greater than 3:1 (horizontal:vertical) to minimize abrupt variations in fill thickness. All fill should be compacted in accordance with the recommendations for fill presented in the "Compaction" section of this report.

If the fill material meets the requirements in the "Material for Fill" section below, it may be reused an engineered fill.

6.3 Abandoned Utilities

Abandoned utilities within the proposed structure areas should be removed in their entirety. Utilities within the proposed building area would only be considered for in-place abandonment provided they do not conflict with new improvements, that the ends and all laterals are located and completely grouted, and the previous fills associated with the utility do not pose a risk to the structure.

Utilities outside the structure areas should be removed or abandoned in-place by grouting or plugging the ends with concrete. Fills associated with utilities abandoned in-place could pose some risk of settlement; utilities that are plugged could also pose some risk of future collapse or erosion should they leak or become damaged. The potential risks are relatively low for small diameter pipes (4 inches or less) abandoned in-place and increasingly higher with increasing diameter.

6.4 Subgrade Preparation

After the site has been properly cleared, stripped, and necessary excavations have been made, exposed surface soils in those areas to receive fill, slabs-on-grade, or pavements should be scarified to a depth of 6 inches, moisture conditioned, and compacted in accordance with the recommendations for fill presented in the "Compaction" section. The finished compacted subgrade should be firm and non-yielding under the weight of compaction equipment.

Based on our experience with similar projects, the contractor should be made aware of the moisture sensitivity of the clayey and sandy soils that may result in subgrade instability and/or potential compaction difficulties. Detailed recommendations are included in subsequent sections.

6.5 Material for Fill

All on-site soils below the stripped layer having an organic content of less than 3 percent by weight are suitable for use as fill at the site. In general, fill material should not contain rocks or lumps larger than 6 inches in greatest dimension, with 15 percent or less larger than 2½ inches in the greatest dimension.

Import fill material should be inorganic, have a PI of 15 or less and should have sufficient binder to reduce the potential for sidewall caving of foundation and utility trenches. Samples of the proposed import fill should be submitted to us at least 10 working days prior to delivery to the site to allow for visual review and laboratory testing. This will allow us to evaluate the general conformance of the import fill with our recommendations.

Consideration should also be given to the environmental characteristics and corrosion potential of any imported fill. Suitable documentation should be provided for import material. In addition, it may be appropriate to perform laboratory testing of the environmental characteristics and corrosion potential of imported materials. Import soils should not be more corrosive than the on-site native materials, including pH, soluble sulfates, chlorides and resistivity.

6.6 Compaction

All fill, as well as scarified surface soils in those areas to receive fill or slabs-on-grade, should be compacted to at least 90 percent relative compaction as determined by ASTM Test Designation D1557, latest edition, at a moisture content 1 percent over the laboratory optimum. Fill should be placed in lifts no greater than 8 inches in uncompacted thickness. Each successive lift should be firm and non-yielding under the weight of construction equipment.

In pavement areas, the upper 6 inches of subgrade and full depth of aggregate base should be compacted to at least 95 percent relative compaction (ASTM D1557, latest edition). Aggregate base and all import soils should be compacted at a moisture content near the laboratory optimum.

6.7 Wet Soil Conditions

Earthwork such as subgrade preparation, fill placement and trench backfill may be difficult for soil containing high moisture content or during wet weather. If the soil is significantly above its optimum moisture content, it will become soft, yielding, and difficult to compact. Based on the results of our laboratory tests, the in-situ moisture contents of the near surface soils are above the optimum moisture contents. If saturated soils are encountered, aerating or blending with drier soils to achieve a workable moisture content may be required. We recommend that earthwork be performed during periods of suitable weather conditions, such as the "summer" construction season.

There are several alternatives to facilitate subgrade preparation, fill placement and trench backfill if the soil is wet or earthwork is performed during the wet winter season.

- Scarify and air dry until the fill materials have a suitable moisture content for compaction,
- Over-excavate the fill and replace with suitable on-site or import materials with an appropriate moisture content,
- Install a layer of geo-synthetic (geotextile or geogrid) to reduce surface yielding and bridge over soft fill,
- Chemically treat the higher moisture content soils with quicklime (CaO), kiln-dust, or cement to reduce the moisture content and increase the strength of the fill.

The implementation of these methods should be reviewed on a case-by-case basis so that a cost effective approach may be used for the specific conditions at the time of construction.

6.8 Trench Backfill

Typically, the installation of pipeline via conventional trenching methods would require the excavation of a six- to seven-foot-deep trench to maintain a minimum of three to four feet of cover. The construction work area is anticipated to require a right-of-way up to 50 feet wide. A typical trench would range from two to three feet in width. The trench would be excavated using backhoes, ditching machines, and/or track hoes. An exception to the mechanical excavation would be hand-digging using air tools to locate buried utilities, such as other pipelines, cables, water mains, and sewers. No blasting is anticipated. Fugitive dust emissions at the construction site during earthmoving operations would be controlled as needed by water trucks equipped with spray nozzles.

Due to the undocumented fill and compressible organic clay in the upper 22 feet we recommend flexible piping connections and emergency shut-off valves.

Bedding and pipe embedment materials to be used around underground utility pipes should be well graded sand or gravel conforming to the pipe manufacturer's recommendations and should be placed and compacted in accordance with project specifications, local requirements or governing jurisdiction. General fill to be used above pipe embedment materials should be placed and compacted in accordance with local requirements or the recommendations contained in this section, whichever is more stringent.

On-site soils may be used as general fill above pipe embedment materials provided they meet the requirements of the "Material for Fill" section of this report. General fill should be placed in lifts not exceeding 8 inches in uncompacted thickness and should be compacted to at least 90 percent relative compaction (ASTM D1557, latest edition) by mechanical means only. Water jetting of trench backfill should not be allowed. The upper 6 inches of general fill in all pavement areas subject to wheel loads should be compacted to at least 95 percent relative compaction.

Utility trenches located adjacent to footings should not extend below an imaginary 1:1 (horizontal:vertical) plane projected downward from the footing bearing surface to the bottom edge of the trench. Where utility trenches will cross beneath footing bearing planes, the footing concrete should be deepened to encase the pipe or the utility trench should be backfilled with sand/cement slurry or lean concrete within the foundation-bearing plane.

Where relatively higher permeability sand or gravel backfill is used in trenches through lower permeability soils, we recommend that a cut-off plug of compacted clayey soil or a 2-sack cement/sand slurry be placed where such trenches enter the building and pavement areas. This would reduce the likelihood of water entering the trenches from the landscaped areas and seeping through the trench backfill into the building and pavement areas, and coming into contact with expansive subgrade soils.

6.9 Temporary Slopes and Trench Excavations

The contractor should be responsible for all temporary slopes and trenches excavated at the site and design of any required temporary shoring. Shoring, bracing, and benching should be performed by the contractor in accordance with the strictest governing safety standards. We recommend a maximum slope of 1½:1 (horizontal: vertical) for unshored excavations.

6.10 Surface Drainage

Positive surface water drainage gradients (1% minimum in pavement areas, 2% minimum in landscape areas) should be provided within 5 feet of the buildings adjacent to the structures to direct surface water away from foundations and slabs towards suitable discharge facilities. Ponding of surface water should not be allowed on or adjacent to structures, slabs-on-grade, or pavements. Roof runoff should be directed away from foundation and slabs-on-grade.

6.11 Landscaping Considerations

As the near-surface soils are moderately expansive, we recommend greatly restricting the amount of surface water infiltrating these soils near structures and slabs-on-grade. This may be accomplished by:

- Selecting landscaping that requires little or no watering, especially within 3 feet of structures, slabs-on-grade, or pavements,

- Using low flow rate sprinkler heads, or drip irrigation systems
- Regulating the amount of water distributed to lawn or planter areas by installing timers on the sprinkler system,
- Providing surface grades to drain rainfall or landscape watering to appropriate collection systems and away from structures, slabs-on-grade, or pavements,
- Preventing water from draining toward or ponding near building foundations, slabs-on-grade, or pavements, and
- Avoiding open planting areas within 3 feet of the building perimeter.

We recommend that the landscape architect consider these recommendations while preparing the landscape plans.

6.12 Construction Observation

A representative from our company should observe and test the geotechnical aspects of the grading and earthwork for general conformance with our recommendations including site preparation, selection of fill materials, and the placement and compaction of fill. To facilitate your construction schedule we request sufficient notification (48 hours) for site visits. The project plans and specifications should incorporate all recommendations contained in the text of this report.

7.0 FOUNDATIONS

As discussed in the Conclusions and Development Recommendations section, because the compressible soil and undocumented fill extends to approximately 22 feet below the ground surface we recommend that the proposed tank structures (ringwall and floor) be supported on deep foundations consisting of driven, precast, prestressed concrete friction piles or augered cast-in-place piles.

It is our opinion that driven or cast-in-place pile foundations will be able to support the tank structures with only minor settlements and will provide adequate support during liquefaction and seismic events. In order to reduce the potential for settlements due to liquefaction impacting the pile foundations, we recommend that each pile extend to a depth of at least 70 feet below grade.

Because of the undocumented fill and organic fat clay in the upper 22 feet, we modeled the soil in the upper 22 feet with a relatively low undrained shear strength. In addition, a residual undrained shear strength (EERI MNO-12, 2008) was used to model the liquefiable sands from 47 to 58 feet (except for the area around CPT-16).

Where an individual stratum of potentially-liquefiable soil could result in settlement greater than about ¾-inch, the soils above that layer could generate downdrag forces on pile foundations as the liquefiable soils and overlying materials settle. Based on the results of our liquefaction analysis, we anticipate that there is the potential for downdrag in the area around CPT-16. For the area around CPT-16, the potential downdrag forces extend to a depth of approximately 40 feet below grade. We recommend that the foundations for the tank structures within an approximately 50 foot radius around CPT-16 be designed using downdrag to a depth of 40 feet. Recommendations for friction piles and augered cast-in-place piles, including downdrag forces, are presented in Sections 7.2 and 7.3, respectively. Because downdrag forces due to liquefaction-induced settlements are considered to be a short-term loading condition, we used a factor-of-safety of 1.5 for the allowable skin friction of the soils below the depth of downdrag forces.

Please note that the sloshing of fluid inside the tanks may cause additional lateral forces on the foundations. These additional lateral forces from sloshing should be considered by the structural engineer during design.

The proposed site buildings may be supported on spread footings bearing on at least five feet of engineered fill and the steel structures may be supported on spread footings bearing on at least five feet of engineered fill or drilled piers.

7.1 2010 CBC Site Coefficients and Site Seismic Coefficients

Chapter 16 of the 2010 California Building Code (CBC) outlines the procedure for seismic design of structures. Based on our explorations, the site is underlain by medium stiff to hard, and loose to very dense soils, which corresponds to a soil profile type D. Based on the above information and local seismic sources, the site may be characterized for design using the information in Table 5 below.

Table 5. 2010 CBC Site Class and Site Seismic Coefficients

Latitude: 37.9421 N **Longitude: 121.3381 W**	**CBC Table/ Figure**	**Factor/ Coefficient**	**Value**
Soil Profile Type	Table 1613.5.2	Site Class	D
Mapped Spectral Response Acceleration for MCE at 0.2 second Period	Figure 1613.5(3)	S_s	0.9
Mapped Spectral Response Acceleration for MCE at 1 Second Period	Figure 1613.5(4)	S_1	0.3
Site Coefficient	Table 1613.5.3(1)	F_a	1.1
Site Coefficient	Table 1613.5.3(2)	F_v	1.8
Adjusted MCE Spectral Response Parameter	Equation 16A-37	S_{MS}	1.0
Adjusted MCE Spectral Response Parameter	Equation 16A-38	S_{M1}	0.6
Design Spectral Response Acceleration Parameter	Equation 16A-39	S_{DS}	0.7
Design Spectral Response Acceleration Parameter	Equation 16A-40	S_{D1}	0.4

7.2 Friction Piles for Tank Foundations

As discussed in Section 2.3, several CPTs encountered a very dense layer of sand at various depths and could not be continued. These isolated layers may result in higher driving stresses. As discussed below, a WEAP analysis should be performed to evaluate likely driving stresses through these dense sand layers. If the estimated driving stresses are not acceptable, it may be necessary to predrill the piles in some areas. Predrilled holes should have a diameter no greater than the smallest dimension of the precast piles. Variations in subsurface conditions are typical in this area and changes in driving conditions during construction should be expected.

7.2.1 Vertical Loads

Pile support is expected to come predominantly from frictional support in the stiff clays and silts and dense sands. We computed allowable downward vertical capacities for 14- and 16-inch-square concrete piles. A summary of the allowable pile capacities are presented in Table 6 below. In addition, Figures 5A and 5B shows the increase in pile capacity with depth. The indicated capacities in Table 6 and Figures 5A and 5B are for dead plus live loads. Dead loads should not exceed two-thirds of the computed capacities. Uplift loads should also not exceed two-thirds of the computed downward capacities on Figures 5A and 5B. The pile capacities and uplift loads may be increased by one-third under transient loading, including wind and seismic.

Gross capacity of the piles should not exceed the pile structural capacity. We have assumed a base of pile cap 5 feet below the existing grades for our analysis. To effectively minimize pile group effects and reduction in individual pile capacity, piles should be located with a minimum center-to-center spacing of three times the pile width.

Table 6. Estimated Allowable Capacities for 12-and 14-inch Driven, Precast, Prestressed Concrete Piles

Pile Size	Length[1] (feet)	Estimated Allowable Capacity (dead plus live loads) (kips)
12-inch square	82 / 102[2]	150
12-inch square	101	200
14-inch square	74 / 96[2]	150
14-inch square	90 / 108[2]	200

Note: 1 – Length from bottom of pile cap to bottom of pile
2 – Length of piles within 50-foot radius of CPT-16

Based on the maximum allowable loads for a single pile, we estimate total settlements of less than ¾-inch to mobilize allowable static capacities. Therefore, post-construction pile foundation differential settlements of about ½-inch between pile groups should be anticipated.

7.2.2 Lateral Loads on Piles

Lateral load resistance for pile-supported structures may be developed through pile bending/soil interaction. The magnitude of the lateral load resistance is dependent upon many factors, including pile stiffness and embedment length, conditions of fixity at the pile cap, the physical properties of the surrounding soils, the tolerable top deflection and the yield moment capacity of the pile.

To estimate lateral capacities of piles, we used a computer program that models the soil response in the form of load-deflection (p-y) curves to estimate the capacity of the piles to resist the expected lateral loads. The lateral load characteristics for 12- and 14-inch-square, driven concrete piles with free head and fixed head conditions are presented in Table 7. We have assumed a base of pile cap 5 feet below the existing grades and a 70 foot long pile for our analysis.

Table 7. Estimated Lateral Pile Response – 12- and 14-inch Square Piles

Pile Size	Head Condition	Deflection (inches)	Maximum Shear Force (kips)	Maximum Moment (ft-kips)	Depth to Maximum Moment (ft)
12-inch	Free	¼	6	17	5½
		½	9	27	5½
	Fixed	¼	12	43	Top of Pile
		½	18	69	
14-inch	Free	¼	14	35	5
		½	20	56	5½
	Fixed	¼	27	90	Top of Pile
		½	38	144	

The values presented in Table 7 represent the anticipated maximum shear and moment under short-term loading conditions and include no factor-of-safety. Suitable factors-of-safety should be selected on the basis of the type of loading. Pile stiffnesses (EI) of 5.4×10^9 lb-in^2 and 1.0×10^{10} lb-in^2 have been assumed in our calculations of load deflection for the 12- and 14-inch piles, respectively. A minimum compressive strength of 3,000 pounds per square inch was assumed for concrete modulus calculations. If pile stiffness varies by no more than 20 percent than that reported above, load deflection characteristics may be approximated by multiplying the deflection values by the ratio of the pile stiffness (EI). We should evaluate the response of piles with significantly different stiffness.

The above lateral load characteristics are for single piles and may not be characteristic of the lateral load capacity of piles in a group. Group effects may reduce the allowable lateral load for a given deflection. We recommend that a pile group efficiency of 0.75 be used for pile groups 3-by-3 or smaller. A group reduction would not be necessary for groups of 1 or 2 piles. For pile groups larger than 3-by-3, we recommend that we review the final pile group layout and structural loads to further evaluate the pile group efficiency under lateral loading.

7.2.3 Passive Resistance Against Pile Caps and Grade Beams

If desired, the passive resistance of soil against pile caps and grade beams poured neat against well-compacted engineered fill or native soil may be used for lateral resistance. We recommend that an allowable passive pressure based on an equivalent fluid pressure of 250 pounds per cubic foot be used in design with a maximum pressure of 1,000 psf.

7.2.4 WEAP Analysis

At a minimum, we recommend that the pile contractor have a wave equation analysis of piles (WEAP) performed to confirm compatibility and driveability of the pile driving system with the pile type and soil conditions at the site. We should review the WEAP results prior to mobilization of pile driving equipment to the site.

7.2.5 Indicator Piles

It has been our experience that uncertainties associated with production pile driving can be reduced considerably by implementing an indicator pile program. An indicator pile program will also provide a better means of confirming the limits of layers where high driving resistance may be encountered, and to more accurately estimate final pile lengths.

We recommend that four to six indicator piles be installed for the proposed structures, before the final pile casting lengths have been selected. The indicator piles should be driven with the same equipment that will be used to drive the production piles. We should review or select the indicator pile locations when structural drawings are made available. The indicator pile cast lengths should be based on the design lengths required to meet the desired capacity, plus 5 feet. It is expected that some indicator piles may not be driven to their entire length and will require cutting to provide the desired butt elevation; sufficient moment steel should be provided in the pile. Indicator piles can be used for support of the structure and, therefore, should be located appropriately. We also suggest that one or more spare piles be delivered to the site during the indicator program.

7.2.6 PDA Monitoring

We recommend that a Pile Driving Analyzer (PDA) be used during the indicator pile program to determine approximate pile capacities and driving stresses through dynamic testing. PDA monitoring may allow a reduction in production pile lengths and thus cost savings to the project. PDA monitoring should be performed during indicator driving and on selected piles for restrikes;

preferably restrikes should be performed no sooner than seven days after initial driving. *Please note that restrike testing more than one day after installation may significantly alter the contractor's sequencing. Therefore, if restrike testing is selected for this project, is should be clearly identified on the plans and specifications to avoid unexpected costly change-orders for out of sequence moves.* PDA monitoring would be especially beneficial for checking stresses in the piles and for evaluating pile integrity on any piles suspected of being damaged during indicator or production driving. Piles designated for PDA monitoring during indicator pile installation should be at least 10 feet longer than design length so that the gauges are not driven into the ground.

7.2.7 Production Pile Installation

We recommend that a pile hammer capable of delivering a minimum rated driving energy of 60,000 foot-pounds be used. If indicator piles are installed, the same hammer should be used for both the indicator piles and the production piles. The pile contractor should perform wave equation analysis to confirm the compatibility and drivability of the pile driving system with the pile type and soil conditions at the site. We should be given sufficient time to review the wave equation results prior to mobilization of pile driving equipment to the site.

Since the piles are designed for skin friction support, they should be driven to the desired tip elevation. If difficult driving conditions are encountered, we should review the driving record and evaluate potential tip capacity to allow reduction in pile length. We may also recommend that a Pile Driving Analyzer (PDA) be used during production driving to determine approximate pile capacities through dynamic analyses. PDA monitoring would be especially beneficial for checking restrike capacities of any piles short of required tip elevation or for evaluating pile integrity on any piles suspected of being damaged during driving. We should observe all indicator and production pile installation on a full-time basis.

7.3 Augercast Pressure-Grouted Displacement (APGD) Piles for Tank Foundation

While less common than driven piles, augercast piles have been successfully used for projects in similar soil conditions. Augercast piles are cast-in-place concrete piles that are drilled using a hollow-stem auger and pumping sand-cement grout through the bottom of the auger as the auger is retracted. Two types of augercast piles are available: APG piles, which like piers, remove the soil column and replace it with grout; APGD piles, which displace the soil prior to grout placement. We anticipate that displacement piles are preferred so the drilling spoils generated would be minor. Augercast piles are a low noise and vibration installation compared to driven piles and would not require pre-drilling through the very dense sand layers. Various types of steel reinforcing including rebar cages or H-piles may be installed into the still wet grout after drilling.

7.3.1 Vertical Capacities

As with driven piles, augercast piles will develop their vertical capacity predominately from frictional support in the stiff clays and silts and dense sands. We computed allowable downward vertical capacities for 18- and 24-inch diameter displacement augercast (APGD) piles. A summary of the allowable pile capacities is presented in Table 8 below. In addition, Figures 5A and 5B show the increase in pile capacity with depth. The indicated capacities in Table 8 and Figures 5A and 5B are for dead plus live loads. Dead loads should not exceed two-thirds of the computed capacities. Uplift loads should also not exceed two-thirds of the computed downward capacities. The pile capacities may be increased by one-third under transient loading, including wind and seismic. Please note that displacement augercast piles are usually limited to a total drill depth of 75 to 80 feet below grade or less due to the equipment limitations.

We have assumed a base of pile cap at approximately 5 feet below the existing grade for our analysis. To effectively minimize pile group effects and reduction in individual pile capacity, piles should be located with a minimum center-to-center spacing of three times the pile diameter.

Table 8. Estimated Allowable Capacities for 18-and 24-inch Auger Pressure Grouted Displacement Piles

Pile Size	Length[1] (feet)	Estimated Allowable Capacity (dead plus live loads) (kips)
18-inch round	75 / 97[2]	150
18-inch round	91	200
24-inch round	75 / 88[2]	200
24-inch round	87 / 97[2]	250

Note: 1 – Length from bottom of pile cap to bottom of pile
2 – Length of piles within 50-foot radius of CPT-16

Based on the maximum allowable loads for a single pile, we estimate total settlements of less than ¾-inch to mobilize allowable static capacities. Therefore, post-construction pile foundation settlements of less than ½-inch should be considered.

7.3.2 Lateral Loads on Augercast Piles

To estimate lateral capacities of piles, we used a computer program that models the soil response in the form of load-deflection (p-y) curves to estimate the capacity of the piles to resist the expected lateral loads. The lateral load characteristics for 18- and 24-inch diameter, augercast piles with fixed- and free-head conditions are presented in Table 9 below.

Table 9. Estimated Lateral Pile Response – 18- and 24-inch Round Piles

Pile Size	Head Condition	Deflection (inches)	Maximum Shear Force (kips)	Maximum Moment (ft-kips)	Depth to Maximum Moment (ft)
18-inch	Free	¼	10	32	7
		½	14	52	7½
	Fixed	¼	19	84	Top of Pile
		½	27	134	
24-inch	Free	¼	15	64	8½
		½	21	102	10
	Fixed	¼	29	164	Top of Pile
		½	41	266	

The analysis results represent the probable response of the piles under short-term loading conditions and include no factor-of-safety. Suitable factors-of-safety should be selected on the basis of the type of loading. Pile stiffnesses (EI) of 1.6×10^{10} lb-in^2 and 5.1×10^{10} lb-in^2 have been assumed in our calculations of load deflection for the 18- and 24-inch piles, respectively. We assumed a minimum compressive strength of 3,000 pounds per square inch for concrete modulus calculations. If pile stiffness varies by no more than 20 percent than that reported above, load deflection characteristics can be approximated by multiplying the deflection values by the ratio of the pile stiffness (EI). We should evaluate the response of piles with significantly different stiffness.

The above lateral load characteristics are for single piles and may not be characteristic of the lateral load capacity of piles in a group. Group effects may reduce the allowable lateral load for a given deflection. We recommend that a pile group efficiency of 0.75 be used for pile groups 3-by-3 or smaller. A group reduction would not be necessary for groups of 1 or 2 piles. For pile groups larger than 3-by-3, we recommend that we review the final pile group layout and structural loads to further evaluate the pile group efficiency under lateral loading.

7.3.3 Passive Resistance Against Pile Caps and Grade Beams

If desired, the passive resistance of soil against pile caps and grade beams poured neat against well-compacted engineered fill may be used for lateral resistance. We recommend that an allowable passive pressure based on an equivalent fluid pressure of 250 pounds per cubic foot be used in design with a maximum pressure of 1,000 psf.

7.3.4 Pile Load Tests

Load testing for augercast pile foundations typically consists of performing one or more full scale static load test. We recommend that at least three load tests be performed. Static load tests include installing a test pile either in a production pile location or not, with four surrounding anchor piles supporting a load frame to resist jacking against the test pile. During installation of the test piles, the contractor should allow for monitoring pile displacement at the top of pile, 10 feet below top, middle, and pile tip. Monitoring can be by strain gauges or capped conduits placed in the pile, allowing telltales to be placed during testing. This will allow for observation of the loads at which the skin friction is mobilized. A more detailed description of static load tests is presented in ASTM D5780. A member of our staff should be present during installation of the test piles and load testing and have the opportunity to review the test results.

7.4 Footings for Site Buildings

The proposed site buildings (Control Building, Maintenance Shop, Bill of Lading Building with Drivers Facilities, and Sample Shed) and steel structures may be supported on spread footings bearing on at least five feet of compacted engineered fill. All footings should have a minimum width of at least 12 inches and footing bottoms should extend at least 18 inches below lowest adjacent finished grade. Lowest adjacent finished grade may be taken as the bottom of interior slab-on-grade or the finished exterior grade, excluding landscape topsoil, whichever is lower.

Footings constructed on engineered fill in accordance with the above recommendations would be capable of supporting maximum allowable bearing pressures of 2,000 pounds per square foot (psf) for dead loads, 3,000 psf for combined dead and live loads, and 4,000 psf for all loads including wind or seismic. These allowable bearing pressures are based upon factors of safety of 3.0, 2.0, and 1.5 for dead, dead plus live, and seismic loads, respectively.

These maximum allowable bearing pressures are net values; the weight of the footing may be neglected for design purposes. All footings located adjacent to utility trenches should have their bearing surfaces below an imaginary 1:1 (horizontal:vertical) plane projected upward from the bottom edge of the trench to the footing.

All continuous footings should be reinforced with top and bottom steel to provide structural continuity and to help span local irregularities. We should observe all footing excavations before reinforcing steel is placed.

Structural loads were not available for our review at the time of our investigation. Therefore, we assumed a typical interior column dead plus live loads on the order of 50 kips for our settlement analysis. Based on the assumed loads and the maximum allowable bearing pressures

recommended, we estimate that total foundation movement under static loads will be approximately ½-inch, with differential movement of approximately ¼-inch over a horizontal distance of 50 feet. We should be retained to review the final foundation plans and structural loads to verify the above settlement estimates.

We estimate that differential settlements from liquefaction for shallow foundations will be on the order of up to 1 inch in 50 feet. However because of the fairly thick shallow liquefiable layer found in CPT-16, we estimate settlement from liquefaction for shallow foundations will be on the order of 2 inches in 50 feet for an approximately 50 foot radius around CPT-16.

7.5 Friction Piers for Steel Structures

As an alternative to spread footings supported on engineered fill, the proposed steel structures (equipment skids and racks, pipe supports, stiles, loading racks and the loading rack canopy) be supported on drilled, cast-in-place, straight-shaft friction piers. The piers should have a minimum diameter of at least 12 inches and extend at least 10 feet below the existing ground surface. Piers may be designed for an allowable skin friction of 150 pounds per square foot (psf) for combined dead plus live loads with a one-third increase allowed for either transient wind or seismic loading. The relatively low allowable skin friction is due to the undocumented fill and compressible organic clay encountered at the site in the upper 22 feet. Piers should have a minimum center-to-center spacing of at least three pier diameters.

Resistance to uplift loads will be developed in friction along the pier shafts. We recommend that an allowable uplift frictional resistance of 100 psf be used.

Lateral loads exerted on structures supported on piers may be resisted by a passive resistance based on an equivalent fluid pressure of 250 pounds per cubic foot (pcf) acting against two times the projected diameters of the individual pier shafts below rough pad grade, with a maximum pressure of 1,000 psf at depth. The upper 12 inches of soil should be neglected when calculating the lateral capacity of the piers.

The bottoms of pier excavations should be dry, reasonably clean, and free of loose soil before reinforcing steel is installed and concrete is placed. We recommend that the excavation of all piers be performed under our direct observation to establish that the piers are founded in suitable materials and constructed in accordance with the recommendations presented in this report.

Due to the high ground water and the loose nature of the upper sands, casing of each pier shaft may be necessary. If water cannot be removed from excavations prior to concrete placement, then concrete will need to be placed by tremie pipe. The concrete should be tremied to the bottom of the hole keeping the tremie pipe below the surface of the concrete to avoid entrapment of water in the concrete. As concrete is poured, water is displaced out of the hole.

Total settlement for the recommended pier foundations should not exceed approximately 1 inch and post construction differential settlement across the structure founded on piers should be approximately ½-inch in 50 feet due to static loads. We should be retained to review the final foundation plans and structural loads to verify the above settlement estimates.

We estimate that differential settlements from liquefaction for shallow foundations will be on the order of up to 1 inch in 50 feet. However because of the fairly thick shallow liquefiable layer found in CPT-16, we estimate settlement form liquefaction for shallow foundations will be on the order of 2 inches in 50 feet for an approximately 50 foot radius around CPT-16.

8.0 CONCRETE SLABS-ON-GRADE

8.1 Slabs-on-Grade

As previously discussed, all slab-on-grade floors should be supported on at least five feet of engineered fill. Please refer to the Removal of Undocumented Fill section of this report. In addition, we recommend that slabs-on-grade be supported on at least 6 inches of non-expansive fill (NEF) to reduce the likelihood of slab damage from heave. Before slab construction, the subgrade surface should be proof-rolled to provide a smooth, firm surface for slab support. Slab reinforcing should be provided in accordance with the anticipated use and loading of the slab.

All floor slabs may be supported directly on compacted soil or fill, prepared in accordance with the recommendations presented in the "Subsurface Preparation" section of this report. Before slab construction, the subgrade surface should be proof-rolled to provide a smooth, firm surface for slab support. Slab reinforcing should be provided in accordance with the anticipated use and loading of the slab.

If desired to limit moisture rise through slab-on-grade floors, the guidelines presented in the "Moisture Protection Considerations" below should be considered.

8.2 Moisture Protection Considerations

Since the long-term performance of the concrete slab foundations depends to a large degree on good design, workmanship, and materials, the following general guidelines are presented for consideration by the developer, design team, and contractor. The purpose of these guidelines is to aid in producing a concrete slab of sufficient quality to reduce the potential for moisture-related problems associated with mat foundation construction. These guidelines may be supplemented, as necessary, based on the specific project requirements.

- A minimum 15-mil thick vapor barrier meeting minimum ASTM E 1745, Class A requirements should be placed directly below the mat. The vapor barrier should extend to the edge of the mat. At least 6 inches of free-draining gravel, such as ½-inch or ¾-inch crushed rock with no more than 5 percent passing the ASTM No. 200 sieve, should be placed below the vapor barrier to serve as a capillary break (no sand). The crushed rock should be consolidated in place with vibratory equipment. The vapor barrier should be sealed at all seams and penetrations. The 6 inches of free-draining gravel can serve as the NEF.

- The concrete water/cement ratio should not exceed 0.45. Midrange plasticizers could be used to facilitate concrete placement and workability.

- Water should not be added after initial batching, unless the slump of the concrete is less than specified, and the resulting water/cement ratio will not exceed 0.45.

- Polishing the concrete surface with metal trowels should not be permitted.

- All concrete surfaces to receive any type of floor covering should be moist-cured for a minimum of 7 days. Moist curing methods may include frequent sprinkling, or using coverings such as burlap, cotton mats, or carpet. The covering should be placed as soon as the concrete surface is firm enough to resist surface damage. The covering should be kept continuously wet and not allowed to dry out during the required curing period.

- Water vapor emission levels and pH should be determined before floor installation as required by the manufacturer of the floor covering materials. Measurements and calculations should be made according to ASTM F1869-98 and F710-98 protocol.

The guidelines presented above are based on information obtained from various technical sources, including the American Concrete Institute (ACI), and are intended to present information that can be used to reduce potential long-term impacts from slab moisture infiltration. It should be noted that the application of these guidelines does not affect the geotechnical aspects of the foundation performance.

9.0 RETAINING WALLS

9.1 Lateral Earth Pressures

Any proposed retaining should be designed to resist lateral earth pressures from adjoining natural materials, backfill, and surcharge loads. Provided that adequate drainage is provided as recommended below, we recommend that walls restrained from movement at the top be designed to resist an equivalent fluid pressure of 45 pounds per cubic foot (pcf) plus a uniform pressure of 8H pounds per square foot, where H is the distance in feet between the bottom of the footing and the top of the wall. Restrained walls should also be designed to resist an additional uniform pressure equivalent to one-half of any surcharge loads applied at the surface. Any unrestrained retaining walls with adequate drainage should be designed to resist an equivalent fluid pressure of 45 pcf plus one-third of any surcharge loads.

The above lateral earth pressures assume level backfill conditions and sufficient drainage behind the walls to prevent build-up of hydrostatic pressure from surface water infiltration and/or a rise in the ground water level. If adequate drainage is not provided, we recommend an equivalent fluid pressure of 40 pcf be added to the values recommended above for both restrained and unrestrained walls. Damp-proofing of the walls should be included in areas where wall moisture and efflorescence would be undesirable.

9.2 Drainage

Adequate drainage may be provided by a subdrain system behind the walls. This system should consist of a 4-inch minimum diameter perforated pipe placed near the base of the wall (perforations placed downward). The pipe should be bedded and backfilled with Class 2 Permeable Material per Caltrans Standard Specifications, latest edition. The permeable backfill should extend at least 2 feet out from the wall and to within 2 feet of outside finished grade. Alternatively, ½-inch to ¾-inch crushed rock may be used in place of the Class 2 Permeable Material provided the crushed rock and pipe are enclosed in filter fabric, such as Mirafi 140N or equivalent. The upper 2 feet of wall backfill should consist of relatively low permeable compacted on-site clayey soil. The subdrain outlet should be connected to a free-draining outlet or sump.

Miradrain, Geotech Drainage Panels, or Enkadrain drainage matting may be used for wall drainage as an alternative to the Class 2 Permeable Material or drain rock backfill. The drainage panel should be connected to the perforated pipe at the base of the wall, or to some other closed or through-wall system. Miradrain panels should terminate 18 to 24 inches from final exterior grade. The Miradrain panel filter fabric should be extended over the top of and behind the panel to protect it from intrusion of the adjacent soil.

9.3 Backfill

Backfill placed behind the walls should be compacted to at least 90 percent relative compaction using light compaction equipment. If heavy compaction equipment is used, the walls should be temporarily braced.

9.4 Foundation

Retaining walls may be supported on a continuous spread footing designed in accordance with the recommendations presented in the "Footings" section of this report. Lateral load resistance for the walls may be developed in accordance with the recommendations presented in the "Lateral Loads" section.

10.0 CONTAINMENT WALLS

We understand masonry walls may be constructed to provide secondary containment. Design considerations for the containment walls should include sliding stability, overturning stability, allowable bearing pressure, soil pressures on the resisting and driving sides, and water pressures. After dimensions of the floodwalls are known we can provide detailed soil and water pressures needed for the overturning analyses.

Excavations for containment wall foundations should be observed by us in the field to verify anticipated foundation conditions, including soil classifications and hydraulic conductivities.

11.0 CONTAINMENT BERMS

We understand that earthen berms would provide the required secondary containment capacity around the proposed tanks. We recommend that fill slopes for the proposed containment berms should have a have a maximum inclination of 2H:1V (horizontal:vertical). To provide containment, the berms should be constructed with low permeability soil (maximum vertical and horizontal hydraulic conductively of 1×10^{-6} centimeters per second when compacted to a relative compaction of 90 percent or greater based on the ASTM D 1557 maximum dry density) or a cut off membrane should be used. If the containment berms will be greater than five feet high or a wall will be constructed on top, we should provide additional recommendations. We should be retained to review the final design of the containment berms.

Exposed slopes will require periodic maintenance due to minor sloughing and erosion. We recommend that all soil slopes be landscaped to minimize erosion.

A Storm Water Pollution Prevention Plan (SWPPP) should be prepared with the grading plans to fulfill the requirements of the State of California's General Permit to Discharge Storm Water Associated with Industrial Activity (General Permit). Federal Regulations for controlling pollutants in storm water runoff discharges are described in Title 40, Code of Federal Regulations (CFR) Parts 122, 123, 124. TRC can provide the SWPPP preparation and monitoring services during the winter months.

We recommend that you forward your final grading plans to us so that erosion control measures may be reviewed and more specific recommendations may be provided, if needed.

12.0 PIPE JACKING

12.1 Pipe Jacking Method

The proposed project will install approximately a 5,000 feet of pipeline systems of new below ground pipelines, allowing transportation of the petroleum products from the Deep Water Channel Dock/Berth and the Kinder Morgan Product pipeline to the TST and ultimately TST Customers. The KMP branch connection pipeline to the TST would be installed below ground except for some parts of the TST and Tank Farm. Conventional trenching of the pipeline would occur along Navy Drive to the rail road spur that makes up the northern border of the TST. At the railroad spur, boring and drilling (pipe jacking) would be the primary method of placing the pipeline underground.

Pipe jacking is a general name for a number of different trenchless pipe construction methods where pipe sections are hydraulically jacked underground from an entry or jacking pit to an exit or receiving pit. The two most common pipe jacking methods for pipe diameters that are too small for manual excavation at the face and pipe lengths less than about 500 to 800 feet are mechanically augering and pressurized-face bentonite slurry or earth pressure balance microtunneling machines.

Mechanically augering is most suited to firm soil conditions above ground water levels or firm or cohesive soils below ground water levels where the soils at the face will not ravel, flow or squeeze rapidly into the pipe, or where excess loss of ground into the pipe and resulting ground settlement are not of concern.

Microtunneling uses a remotely operated and guided miniature tunnel-boring machine to excavate the soils at the pipe face. Microtunneling is more suited to conditions where it is important to minimize loss of ground and settlement, and accurately control the alignment. Microtunneling typically removes spoils using a circulating bentonite slurry system.

Ground settlement may result from loss of ground associated with pipe jacking tunneling methods or lowering ground water levels in the entry and exit pit areas.

Settlement associated with tunneling and pipe jacking is usually evaluated based on available observational data and correlations. More settlement is generally observed for poor workmanship and systems with less control at the excavation face, and less settlement is generally observed for good workmanship and more positive control of conditions at the excavation face.

12.2 Pipe Jacking Recommendations

CPT-9 was performed in the swale near the proposed pipe jacking area. The upper 10 to 15 feet of soil beneath the swale is compressible and ground water was encountered between approximately elevations 4 and 0 feet (NAVD88), approximately 6½ feet below the swale. In addition we judged the design ground water approximately 9½ to 12½ feet (NAVD88) for our liquefaction analysis.

Pipe jacking alternatives include horizontal augering, and microtunneling with either an earth pressure balance machine or bentonite slurry face machine. Of these alternatives, an earth pressure balance machine appears well suited to the anticipated ground conditions, that is, predominantly soft to stiff clays below ground water levels. Control of alignment can be more difficult in soft clays and tend to drift downward due to the weight of the tunneling machine. Bentonite slurry face machines are usually better suited to sandy soils below ground water levels.

We do not recommend horizontal augering because it provides the least control at the face of the tunnel to manage loss of ground in the soft clays, or if unexpected conditions are encountered.

Also, we find that the alignment is not suited to the HDD method due to the shorter length of the crossing and the planned depth.

The contractor should be responsible for the design and construction of the access pits. Copies of the access pit designs and calculations should be provided to us and the project structural engineer for review. Continuously interlocked braced steel sheetpiling will likely be the most practical system for constructing the entry and exit pits. The sheetpiling should be designed for pile handling and driving forces, lateral earth pressures, exterior ground water pressures, jacking pressures, and to provide adequate resistance to seepage uplift pressures (i.e. bottom blow-out).

Potholing should be completed prior to construction to confirm the location of any existing utility lines.

12.3 Jacking and Receiving Pits

Excavations on the order of 15 to 20 feet are anticipated to construct the jacking and receiving pits. The excavations could potentially be temporarily supported by several methods including sheet piling, lagging-braced shoring, temporary slopes if space is adequate or other methods.

Continuously interlocked braced steel sheetpiling will likely be the most practical system for constructing the entry and exit pits. The sheetpiling should be designed for pile handling and driving forces, lateral earth pressures, exterior ground water pressures, jacking pressures, and to provide adequate resistance to seepage uplift pressures (i.e. bottom blow-out).

These excavations will be made adjacent to existing railroad tracks and, therefore, will require temporary support in order to avoid damaging the adjacent improvements. We anticipate that a majority of the excavation will encounter soft to stiff clays; however, some of the excavation will also encounter layers of loose to medium dense sands with variable percentages of fines and gravels. Sloughing of these sand layers should be anticipated and accounted for in design and construction of jacking and receiving pits. Excavation of the pits should be readily accomplished with standard backhoes and excavators during or after shoring installations.

Ground water will likely be encountered in deeper exactions of the jacking and receiving pits and should not be allowed to build-up adjacent to the pits. Hence, dewatering in the area of the pits should be anticipated and provided for in design and construction.

12.3.1 Temporary Shoring

The Contractor should be responsible for all temporary slopes and design of any required shoring. The design of the shoring at jacking and receiving pits, as well as design of the jacking system, should be performed by a Registered Civil or Structural Engineer, retained by the Contractor, and submitted to the Engineer prior to its implementation.

12.3.2 Lateral Earth Pressures

Shoring, bracing or temporary slopes should be performed by the Contractor in accordance with the strictest governing safety standards. Vertical excavations may be temporarily shored using sheet piling, soldier piles, lagging-braced shoring or other shoring schemes, depending on the judgment of the shoring designer and Contractor.

We recommend a rectangular pressure distribution using a lateral soil pressure of at least 25H in pounds per square foot, where H is the height of the excavation in feet. Passive resistance of soil against jacking may be used for lateral resistance. On a preliminary basis, we recommend that an allowable passive pressure based on an equivalent fluid pressure of 250 pounds per cubic foot be

used in design with a maximum pressure of 1,000 psf. Allowable wall pressures for jacking can be re-evaluated when more details regarding the access pit excavation support design are available and provided to us for review.

To limit potential movements of the shoring system, the shoring designer and contractor should consider several design and construction issues. For the movements of shoring to be reduced, the designer will have to provide for a uniform and timely mobilization of the soil pressures.

In addition, ground subsidence and deflections can be caused by other factors, such as voids created behind the shoring system by over-excavation, soil sloughing, erosion of sand or silt layers due to perched water, etc. All voids behind the shoring system should be filled as soon as feasible by grouting to minimize potential problems during installation of the shoring system.

In conjunction with the shoring installation, as previously discussed, a monitoring program should be set up and carried out by the contractor to evaluate the potential effects of the construction on adjacent improvements such as the railroad tracks. As a minimum, we recommend horizontal and vertical surveying of reference points on the shoring and on adjacent railroad tracks in addition to an initial crack survey. We also recommend that all supported and/or sensitive utilities be located and monitored by the contractor. Reference points should be set up and read prior to the start of construction activities. Points should also be set on the shoring as soon as initial installations are made.

The Contractor is also responsible for site safety and the means and methods of construction including temporary shoring. Temporary shoring must be designed by a licensed California Civil or Structural Engineer. Prior to construction, we recommend that the contractor forward his plan for the support system to the structural engineer and geotechnical engineer for preconstruction review.

12.3.3 Surcharge Loads

The temporary shoring should be designed for additional surcharges due to adjacent loads such as construction vehicles. We recommend the access pit excavations be designed for an additional surcharge of at least 200 psf for the upper 5 feet of the wall for construction traffic loads. To prevent excessive surcharging of the walls, we recommend that heavy loads such as construction equipment and stockpiles of materials be kept at least 15 feet from the top of the excavations. If this is not possible, the shoring must be designed to resist the additional anticipated lateral loads.

In addition, all shoring schemes should be designed with sufficient rigidity to prevent detrimental displacements at the top of the shoring, particularly where excavations are completed adjacent to existing utilities, pavements or other improvements.

Where shaft or pit excavations are supported with temporary shoring, some settlement of the adjacent ground surface should be anticipated. If these shored excavations are placed in paved streets, cracking and settlement of the adjacent pavements should be anticipated. The project specifications should require restoration of these damaged pavements, curbs, gutters, etc., to their preconstruction condition. A precondition survey of the area performed by the Contractor prior to construction, including photos, should be considered.

12.3.4 Temporary Construction Dewatering

As previously discussed, measured ground water elevations and historic high ground water levels are above the planned excavation depths; therefore, temporary dewatering will be necessary during construction. Temporary dewatering for construction should be the responsibility of the contractor. The selection of equipment and methods of dewatering should be left up to the contractor and, due to the variable nature of the subsurface conditions in the project area, they

should be aware that modifications to the dewatering system, such as adding well points, may be required during construction depending on the conditions encountered.

We recommend that any dewatering of the site be carried out in such a manner as to maintain the ground water a minimum of 3 feet below the bottom of pit excavations. The contractor should design a system to achieve this criteria. Should dewatering be temporarily shut down, it could have considerable detrimental affects on the excavations, including flooding, destabilization of the bottom of the excavation, shoring failures, etc. Therefore, we recommend that consideration be given to having the dewatering contractor provide backup power in case of loss of power or other redundancies, as deemed necessary. It is the Contractor's responsibility to demonstrate that the ground water is controlled along the pipe alignment for the bore-and-jack operation. The Contractor should read the water depths in each well on a daily basis and submit readings to the Engineer on the same day to verify that ground water is maintained at least 2 feet below pipe invert on a continuous basis (24-hours a day) until installation is complete.

In addition, drawdown of ground water during dewatering can cause subsidence outside of the excavation area. We estimate that limiting drawdown to elevation -10 feet (NAVD88) would cause ¼-inch of subsidence. If less subsidence is desired, then less drawdown should be considered. If drawdown to greater than elevation -10 feet (NAVD88) is desired, we recommend that the affects of such dewatering be further evaluated.

Special considerations may be required prior to discharge of ground water from dewatering activities depending on the environmental impacts at the site or at nearby locations. These requirements may include storage and testing under permit prior to discharge. Impacted ground water may require discharge at an offsite facility.

The bid document should make the Contractor responsible for abandonment of all new wells in accordance with the requirements of the San Joaquin County Environmental Health Department requirements.

12.3.5 Jacking and Receiving Pit Backfill

After completion of the pipe jacking, the loosened and lubricated zone around the annular space between the outside of the pipe casing and the surrounding ground should be displaced with a cement grout. The amount of grout and grouting pressures should be carefully controlled to avoid hydraulic fracturing, ground cracking, and pipe damage. The grouting should be performed promptly after pipe installation has been completed to minimize surface settlement due to movement of the surrounding soils into the loosened and lubricated zone around the pipe casing.

If the outer levee will be used for containment then concerns for developing preferential seepage pathways in close proximity to the levee toes should be considered. The sheetpiled access pits should be abandoned to manage this risk. We therefore recommend that the access pits be backfilled with suitable compacted soils or materials having a hydraulic conductivity similar or less than the surrounding soils and that the sheetpiles either be left in place or pulled. Compacted soil backfill should be placed and compacted as recommended in this report for earthwork construction.

If the sheetpiles are pulled, we recommend that the gaps left in the ground after pulling be grouted with a water-cement grout to seal the gaps. We can provide additional recommendations for grouting and review the contractors grouting plan and methods. If the sheetpiles are left in place, we recommend that backfilling of the access pits be stopped about 4 feet below ground level, the sheetpiles cut off at this level, and the remaining backfilling be completed.

13.0 PAVEMENTS

13.1 Asphalt Concrete

For preliminary planning, we judge an R-value of 20 to be applicable for design. We should verify the R-value of subgrade soils during construction. Using estimated traffic indices for various pavement-loading requirements, we developed the following recommended pavement sections based on Procedure 608 of the Caltrans Highway Design Manual, presented in Table 10.

Table 10. Recommended Asphalt Concrete Pavement Design Alternatives
Pavement Components
Design R–Value = 20

Design Traffic Index	Asphalt Concrete (Inches)	Aggregate Baserock* (Inches)	Total Thickness (Inches)
4.0	2.5	5.5	8.0
4.5	2.5	7.0	9.5
5.0	3.0	7.0	10.0
5.5	3.0	9.0	12.0
6.0	3.5	9.5	13.0
6.5	4.0	10.5	14.5

*Caltrans Class 2 aggregate base; minimum R-value equal to 78.

The traffic indices used in our pavement design are considered reasonable values for the proposed development and should provide a pavement life of approximately 20 years with a normal amount of flexible pavement maintenance. The traffic parameters used for design were selected based on engineering judgment and not on information furnished to us such as an equivalent wheel load analysis or a traffic study. We recommend that R-value testing be performed once cuts for streets are made to confirm the R-value.

Because the full thickness of asphalt concrete is frequently not placed prior to construction traffic being allowed to use the streets (or parking lots), rutting and pavement failures can occur prior to project completion. To reduce this occurrence, we recommend that either the full design pavement section be placed prior to use by construction traffic, or a higher Traffic Index (TI) be specified where construction traffic will use the pavement.

13.2 Portland Cement Concrete Pavements

Recommendations for exterior Portland Cement Concrete (PCC) pavements are presented below in Table 11. Since the expected Average Daily Truck Traffic (ADTT) is not known at this time, we have provided alternatives for minimum pavement thickness. An allowable ADTT should be chosen that is greater than expected for the development.

Table 11. Recommended Minimum PCC Pavement Thickness

Allowable ADTT	Minimum PCC Pavement Thickness (inches)
0.8	5
13	5½
130	6

Our design is based on an R-value of 10 and a 28-day unconfined compressive strength for concrete of at least 3,500 pounds per square inch. In addition, our design assumes that pavements are restrained laterally by a concrete shoulder or curb and that all PCC pavements are underlain by at least 6 inches of Class 2 aggregate base. We recommend that adequate construction and control joints be used in design of the PCC pavements to control the cracking inherent in this construction.

13.3 Pavement Cutoff

Surface water infiltration beneath pavements could significantly reduce the pavement design life. While the amount of reduction in pavement life is difficult to quantify, in our opinion, the normal design life of 20 years may be reduced to less than 10 years. Therefore, long-term maintenance greater than normal may be required.

To limit the need for additional long-term maintenance, it would be beneficial to protect at-grade pavements from landscape water infiltration by means of a concrete cut-off wall, deepened curbs, redwood header, "Deep-Root Moisture Barrier," or equivalent. However, if reduced pavement life and greater than normal pavement maintenance are acceptable, the cutoff barrier may be eliminated. If desired to install pavement cutoff barriers, they should be considered where pavement areas lay downslope of any landscape areas that are to be sprinkled or irrigated, and should extend to a depth of at least 4 inches below the base rock layer.

13.4 Asphalt Concrete, Aggregate Base and Subgrade

Asphalt concrete and aggregate base should conform to and be placed in accordance with the requirements of Caltrans Standard Specifications, latest edition, except that ASTM Test Designation D1557 should be used to determine the relative compaction of the aggregate base. Pavement subgrade should be prepared and compacted as described in the "Earthwork" section of this report.

13.5 Flatwork and Sidewalks

Due to the presence of low to moderately expansive soils, we recommend that exterior slabs-on-grade, such as flatwork and sidewalks be at least 4 inches thick and be underlain by at least 4 inches of Class 2 Aggregate Base or NEF compacted to a minimum of 90 percent relative compaction in accordance with ASTM Test Method D1557, latest edition. Reinforcing steel would be beneficial in reducing shrinkage cracking and vertical faulting at control and construction joints. We recommend that exterior slabs be isolated from adjacent foundations and that adequate construction and control joints be used in design of the concrete slabs to control cracking inherent in concrete construction.

14.0 LIMITATIONS

This report has been prepared for the sole use of Targa, specifically for design of the Targa Terminal in Stockton, California. The opinions presented in this report have been formulated in accordance with accepted geotechnical engineering practices that exist in the San Francisco Bay Area at the time this report was written. No warranty, expressed or implied, is made or should be inferred.

The opinions, conclusions and recommendations contained in this report are based upon the information obtained from our investigation, which includes data from widely separated discrete locations, visual observations from our site reconnaissance, and review of other geotechnical data provided to us, along with local experience and engineering judgment. The recommendations presented in this report are based on the assumption that soil and geologic conditions at or between borings do not deviate substantially from those encountered or extrapolated from the information collected during our investigation. We are not responsible for the data presented by others.

We should be retained to review the geotechnical aspects of the final plans and specifications for conformance with our recommendations. The recommendations provided in this report are based on the assumption that we will be retained to provide observation and testing services during construction to confirm that conditions are similar to that assumed for design and to form an opinion as to whether the work has been performed in accordance with the project plans and specifications. If we are not retained for these services, TRC cannot assume any responsibility for any potential claims that may arise during or after construction as a result of misuse or misinterpretation of TRC's report by others. Furthermore, TRC will cease to be the Geotechnical-Engineer-of-Record if we are not retained for these services and/or at the time another consultant is retained for follow up service to this report.

The opinions presented in this report are valid as of the present date for the property evaluated. Changes in the condition of the property will likely occur with the passage of time due to natural processes and/or the works of man. In addition, changes in applicable standards of practice can occur as a result of legislation and/or the broadening of knowledge. Furthermore, geotechnical issues may arise that were not apparent at the time of our investigation. Accordingly, the opinions presented in this report may be invalidated, wholly or partially, by changes outside of our control. Therefore, this report is subject to review and should not be relied upon after a period of three years, nor should it be used, or is it applicable, for any other properties.

15.0 REFERENCES

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SOURCE AERIAL PHOTO: Google Earth, June 2010.

N

APPROXIMATE SCALE (FEET)

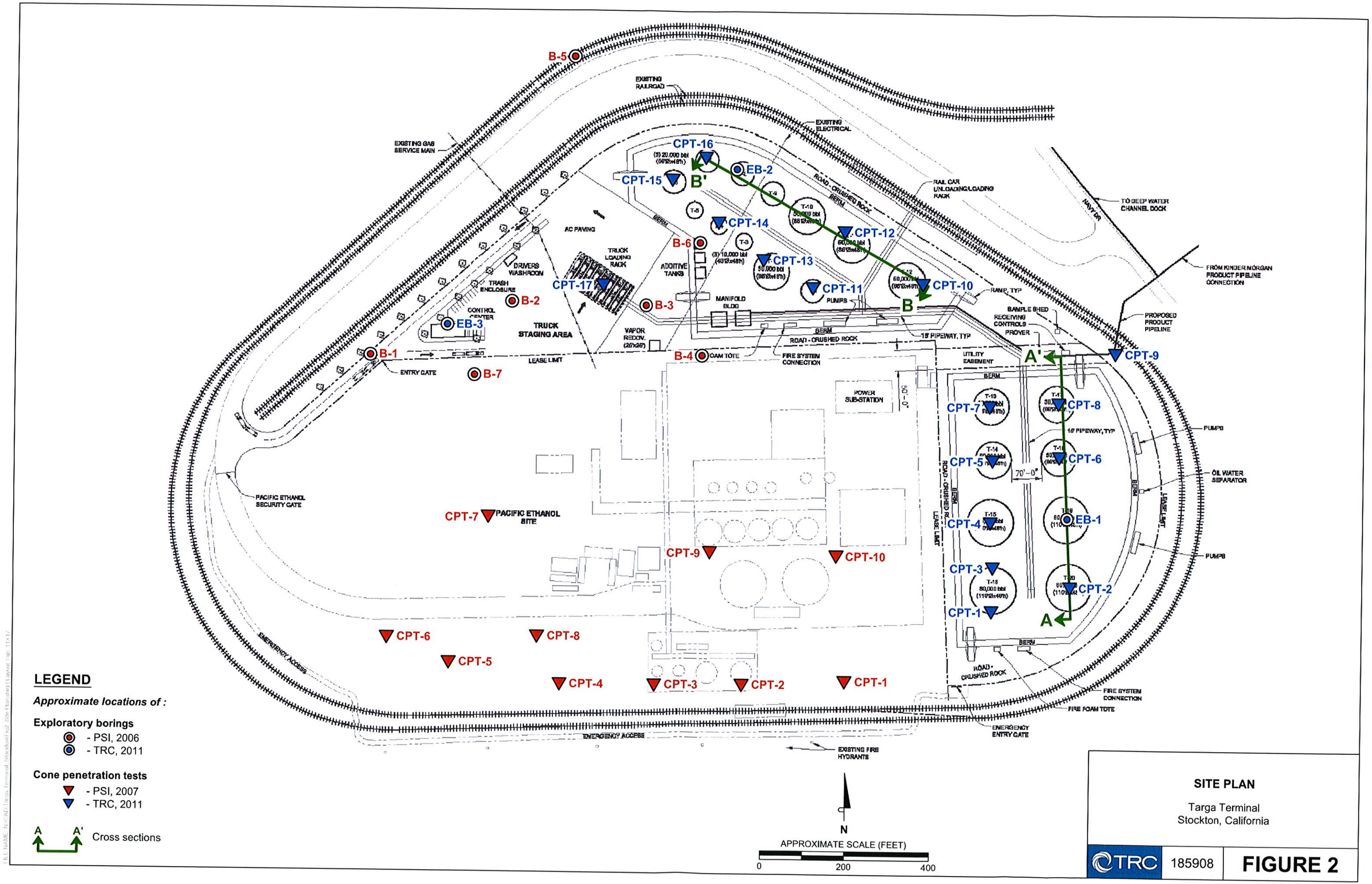
0 600 1200

VICINITY MAP

Targa Terminal
Stockton, California

TRC | 185908 | **FIGURE 1**

FILE NAME: N:\CAD\Targa Terminal_Stockton\Fig1_Vicinity Map.dwg | Layout Tab: 8x11


B-5
EXISTING RAILROAD
EXISTING ELECTRICAL
EXISTING GAS SERVICE MAIN
CPT-16
EB-2
CPT-15
B'
ROAD - CRUSHED ROCK
BERM
RAIL CAR UNLOADING/LOADING RACK
TO DEEP WATER CHANNEL DOCK
NAVY DR
T-5
T-9
T-10
CPT-14
CPT-12
AC PAVING
B-6
T-3
TRUCK LOADING RACK
ADDITIVE TANKS
CPT-13
DRIVERS WASHROOM
TRASH ENCLOSURE
CPT-17
CPT-11
CPT-10
FROM KINDER MORGAN PRODUCT PIPELINE CONNECTION
RAMP, TYP
B-2
B-3
MANIFOLD BLDG
PUMPS
B
SAMPLE SHED
RECEIVING CONTROLS
PROVER
PROPOSED PRODUCT PIPELINE
CONTROL CENTER
EB-3
TRUCK STAGING AREA
VAPOR RECOV. (20'x20')
BERM
ROAD - CRUSHED ROCK
15' PIPEWAY, TYP
B-1
LEASE LIMIT
B-4
FOAM TOTE
FIRE SYSTEM CONNECTION
UTILITY EASEMENT
A'
CPT-9
ENTRY GATE
B-7
BERM
POWER SUB-STATION
50'-0"
CPT-7
CPT-8
15' PIPEWAY, TYP
PUMPS
CPT-5
CPT-6
70'-0"
OIL WATER SEPARATOR
PACIFIC ETHANOL SECURITY GATE
ROAD - CRUSHED RK
LEASE LIMIT
CPT-7
PACIFIC ETHANOL SITE
CPT-4
EB-1
CPT-9
CPT-10
CPT-3
CPT-2
PUMPS
CPT-1
A
EMERGENCY ACCESS
CPT-6
CPT-8
CPT-5
BERM
ROAD - CRUSHED ROCK
CPT-4
CPT-3
CPT-2
CPT-1
FIRE SYSTEM CONNECTION
FIRE FOAM TOTE
EMERGENCY ENTRY GATE
EMERGENCY ACCESS
EXISTING FIRE HYDRANTS
LEGEND
Approximate locations of :
Exploratory borings
- PSI, 2006
- TRC, 2011
Cone penetration tests
- PSI, 2007
- TRC, 2011
A A'
Cross sections
N
APPROXIMATE SCALE (FEET)
0
200
400
SITE PLAN
Targa Terminal
Stockton, California
TRC
185908
FIGURE 2

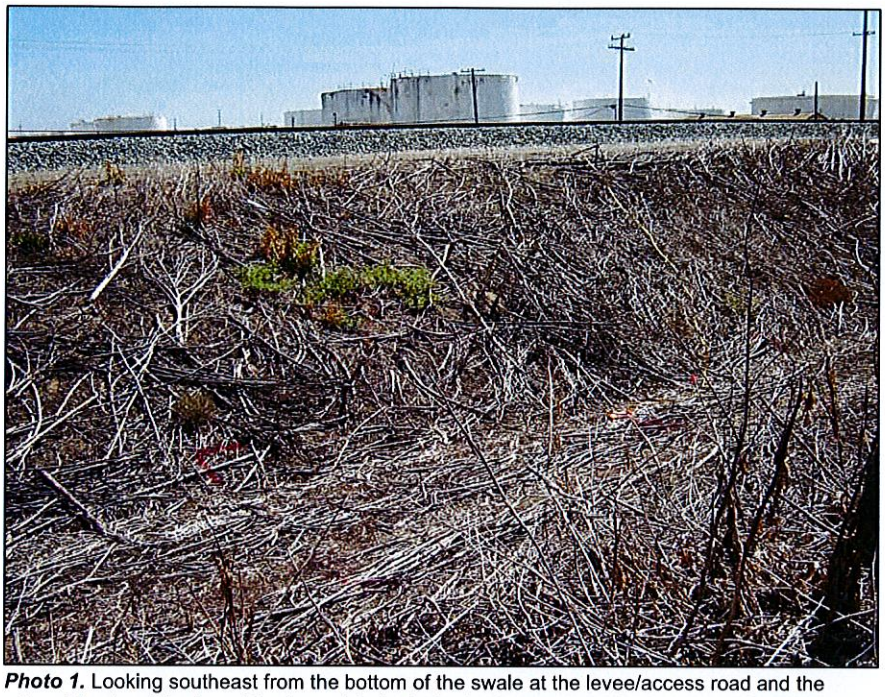


Photo 1. Looking southeast from the bottom of the swale at the levee/access road and the railroad tracks at the top of the levee. Tanks in the background are from across Navy Drive.

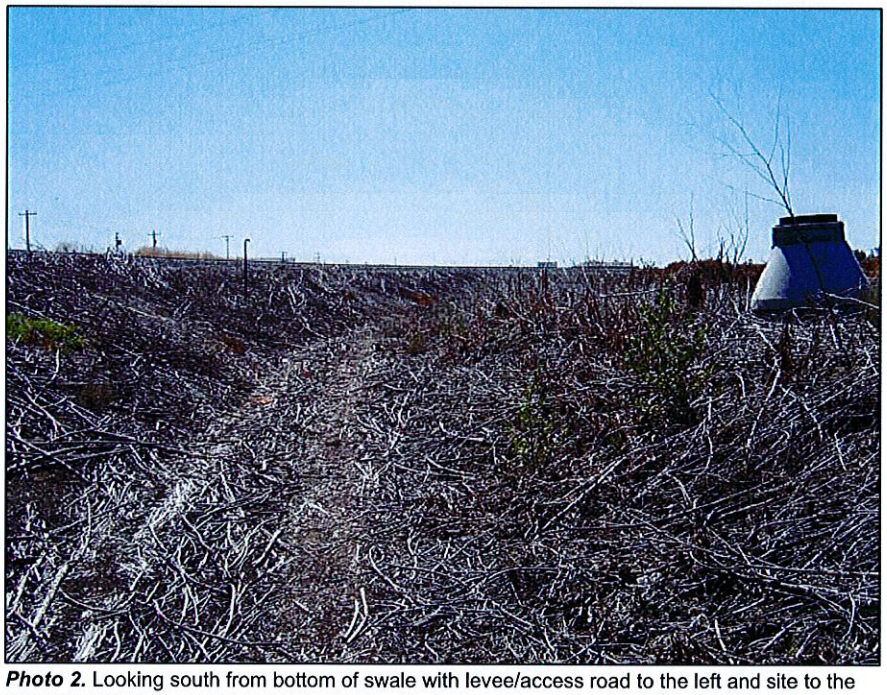


Photo 2. Looking south from bottom of swale with levee/access road to the left and site to the right with existing sanitary sewer manhole. Typical low to medium standing dry vegetation throughout the site.

PHOTOGRAPHS

Targa Terminal
Stockton, California

TRC | 185908 | **FIGURE 3A**

FILE NAME: Z:\Current\Targa Terminal_Stockton\Fig3a_Photos.dwg | Layout Tab: 8x11

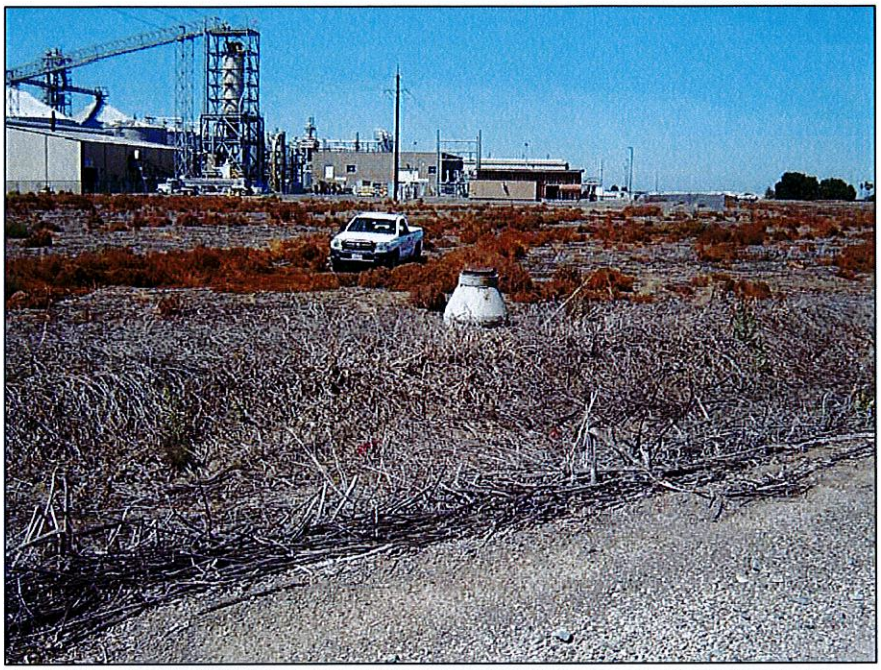


Photo 3. Looking northwest from top of levee/access road towards site and Pacific Ethanol Plant at existing sanitary sewer manhole and low shrubbery.

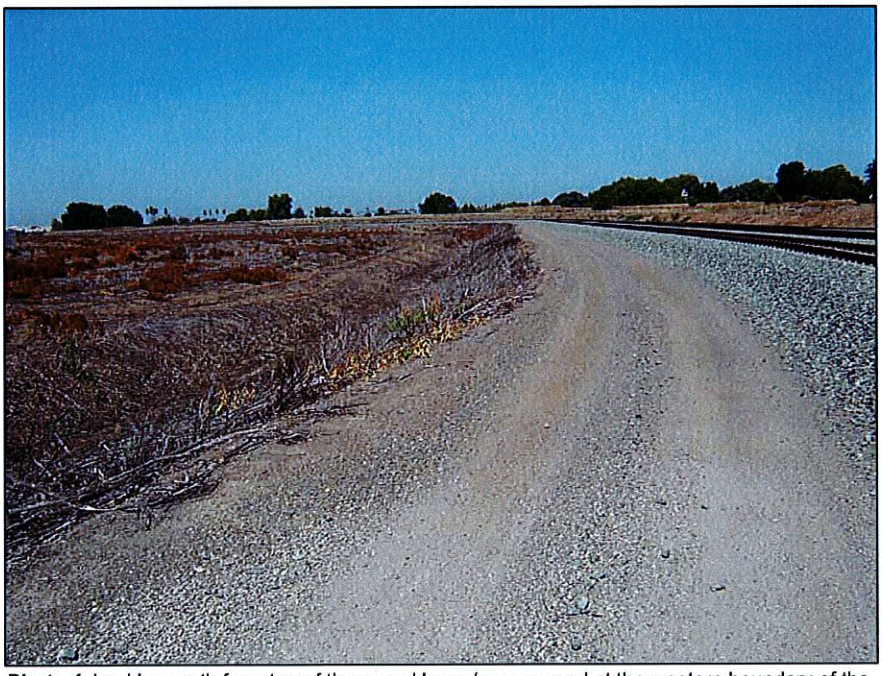


Photo 4. Looking north from top of the gravel levee/access road at the western boundary of the site with the railroad tracks approximately 2 feet above the road to the right, and the swale about 6 feet below to the left.

PHOTOGRAPHS

Targa Terminal
Stockton, California

TRC | 185908 | **FIGURE 3B**

FILE NAME: Z:\Current\Targa Terminal_Stockton\Fig3b_Photos.dwg | Layout Tab: 8x11

Photo 5. Looking south from the levee/access road towards the site and bend in the boundary swale and levee/access road from south to west. Typical low to medium standing dry vegetation and shrubbery and a vertical pipe in the swale.

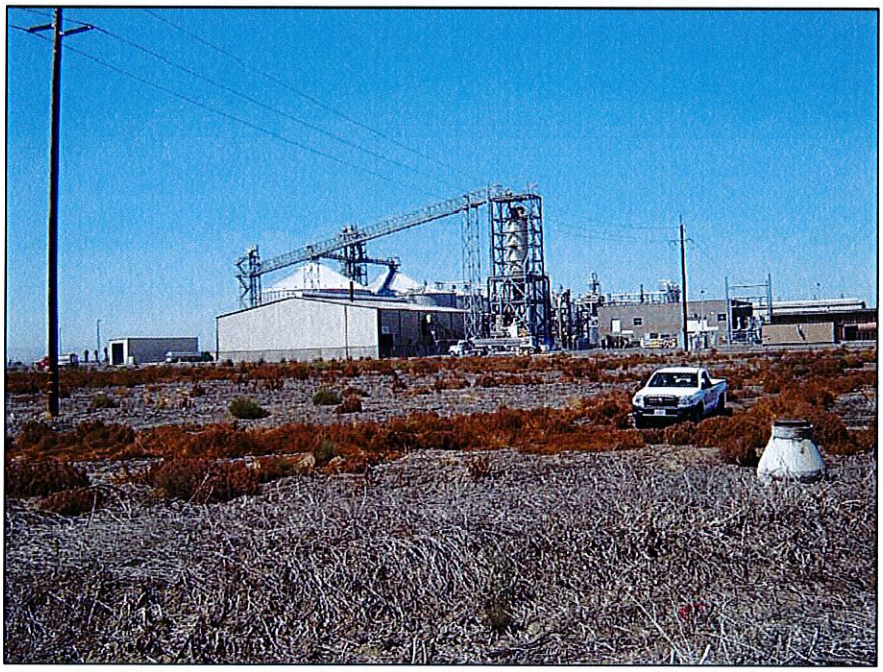


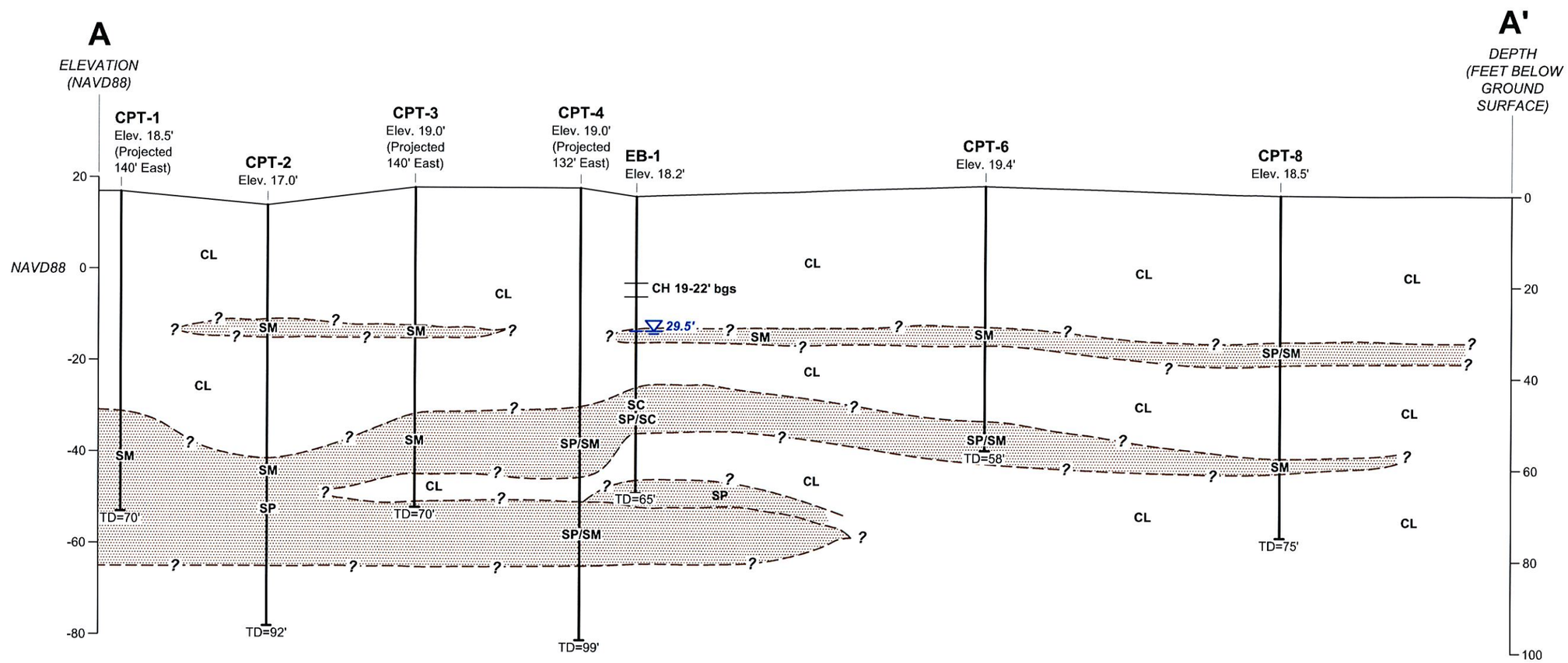
Photo 6. Looking northwest towards the site and the southeast corner of the Pacific Ethanol Plant from the levee/access road. Electrical lines overhead to the left of the picture and sanitary sewer manhole to the right delineate the utility corridor going through the site towards the ethanol plant. Typical dry vegetation and shrubbery observed.

PHOTOGRAPHS

Targa Terminal
Stockton, California

TRC | 185908 | **FIGURE 3C**

FILE NAME: Z:\Current\Targa Terminal_Stockton\Fig3c_Photos.dwg | Layout Tab: 8x11



LEGEND

Boring	
Approximate groundwater elevation	
Total depth of boring (TD=92')	
CH	Fat clay
CL	Lean clay, sandy lean clay, silty clay
SC	Clayey sand
SM	Silty sand
SP	Poorly graded sand
SP/SC	Poorly graded sand with clay

NOTE:

NAVD88 = North American Vertical Datum of 1988

VERTICAL EXAGGERATION = 2:1

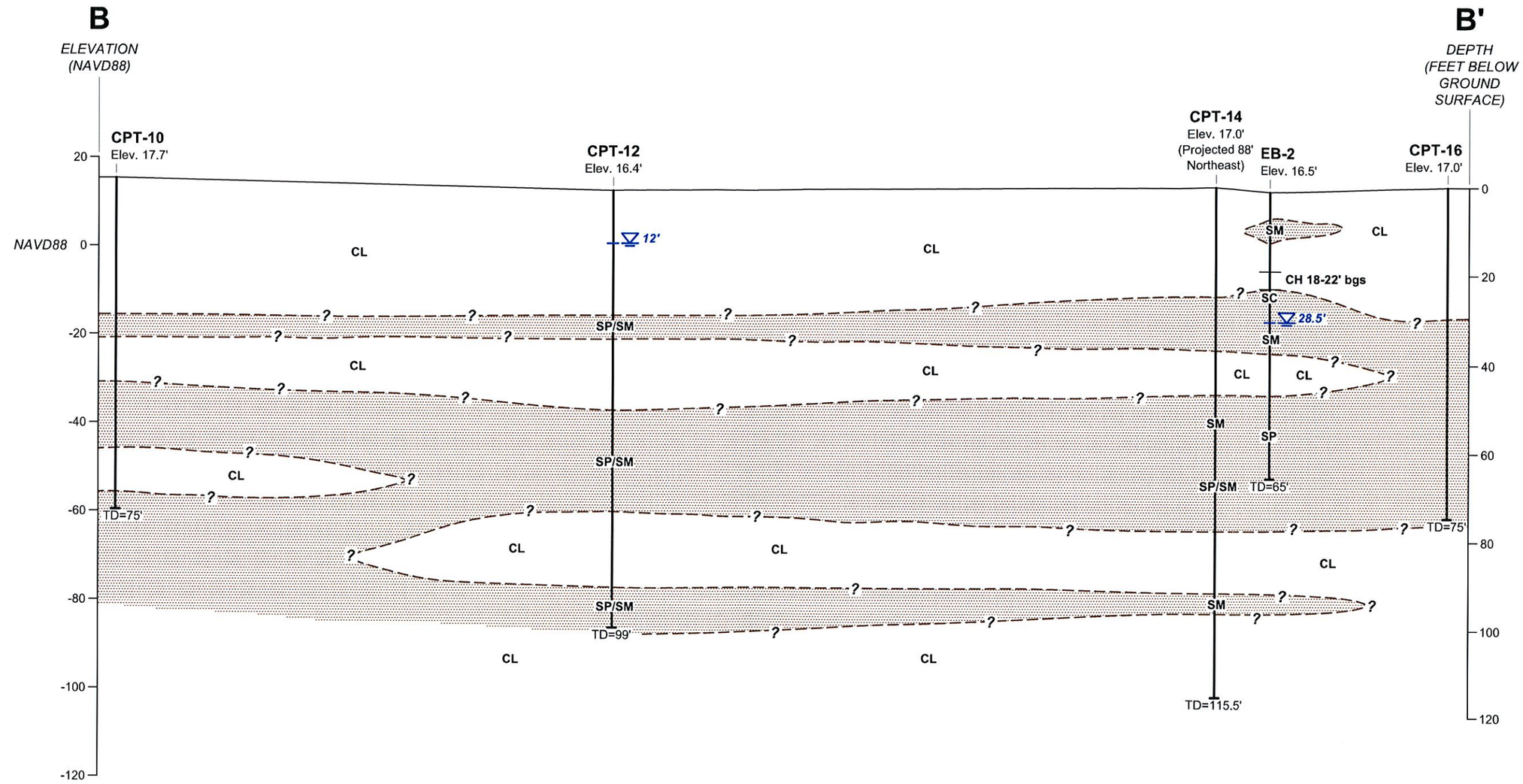
HORIZONTAL SCALE (FEET)

0 50 100

CROSS SECTION A-A'

Targa Terminal
Stockton, California

TRC | 185908 | **FIGURE 4A**



LEGEND

Boring

Approximate groundwater elevation

TD=99' Total depth of boring

CH	Fat clay
CL	Lean clay, sandy lean clay, silty clay
SC	Clayey sand
SM	Silty sand
SP	Poorly graded sand

NOTE:

NAVD88 = North American Vertical Datum of 1988

10 : 10

VERTICAL EXAGGERATION = 2:1

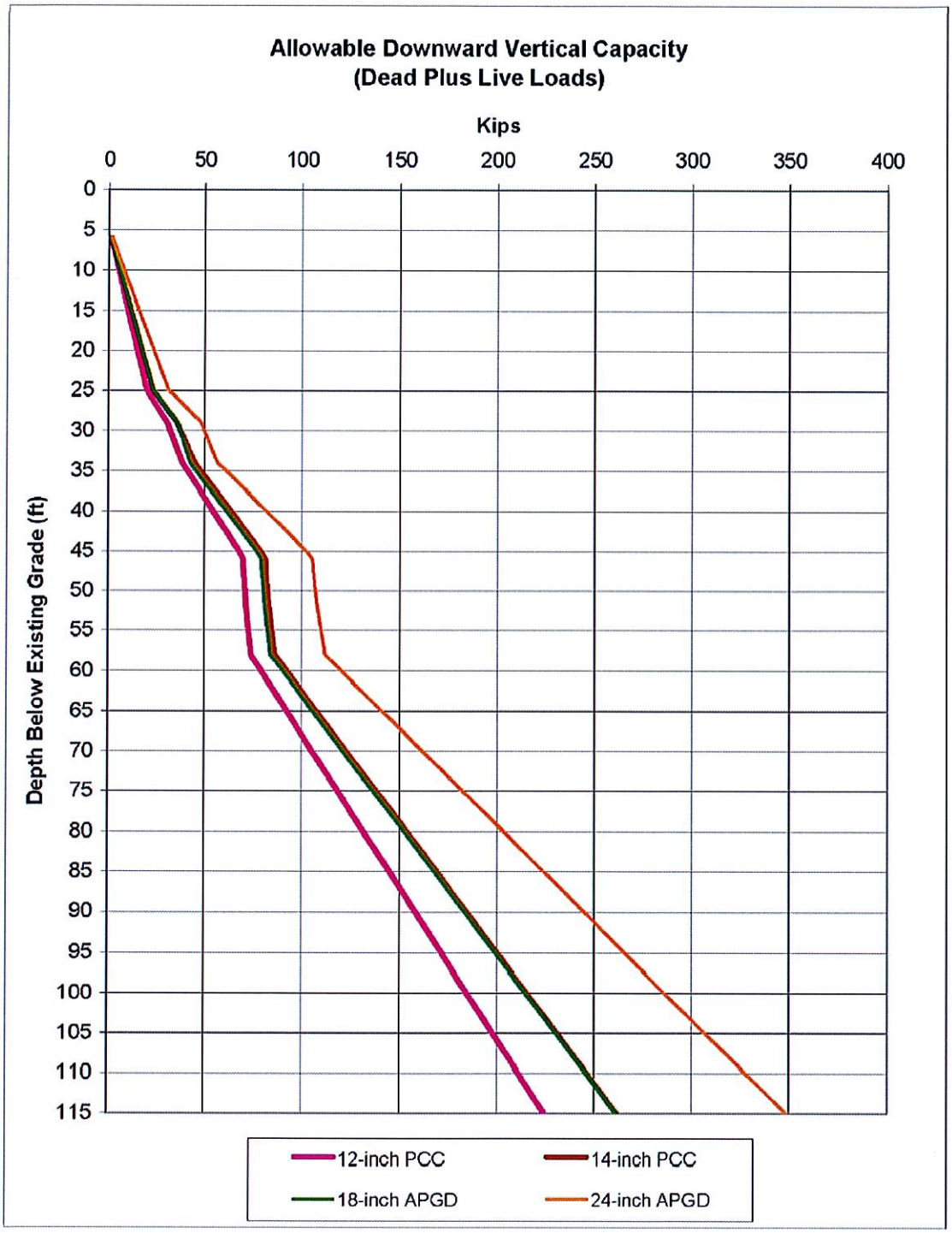
HORIZONTAL SCALE (FEET)

0 50 100

CROSS SECTION B-B'

Targa Terminal
Stockton, California

TRC | 185908 | **FIGURE 4B**

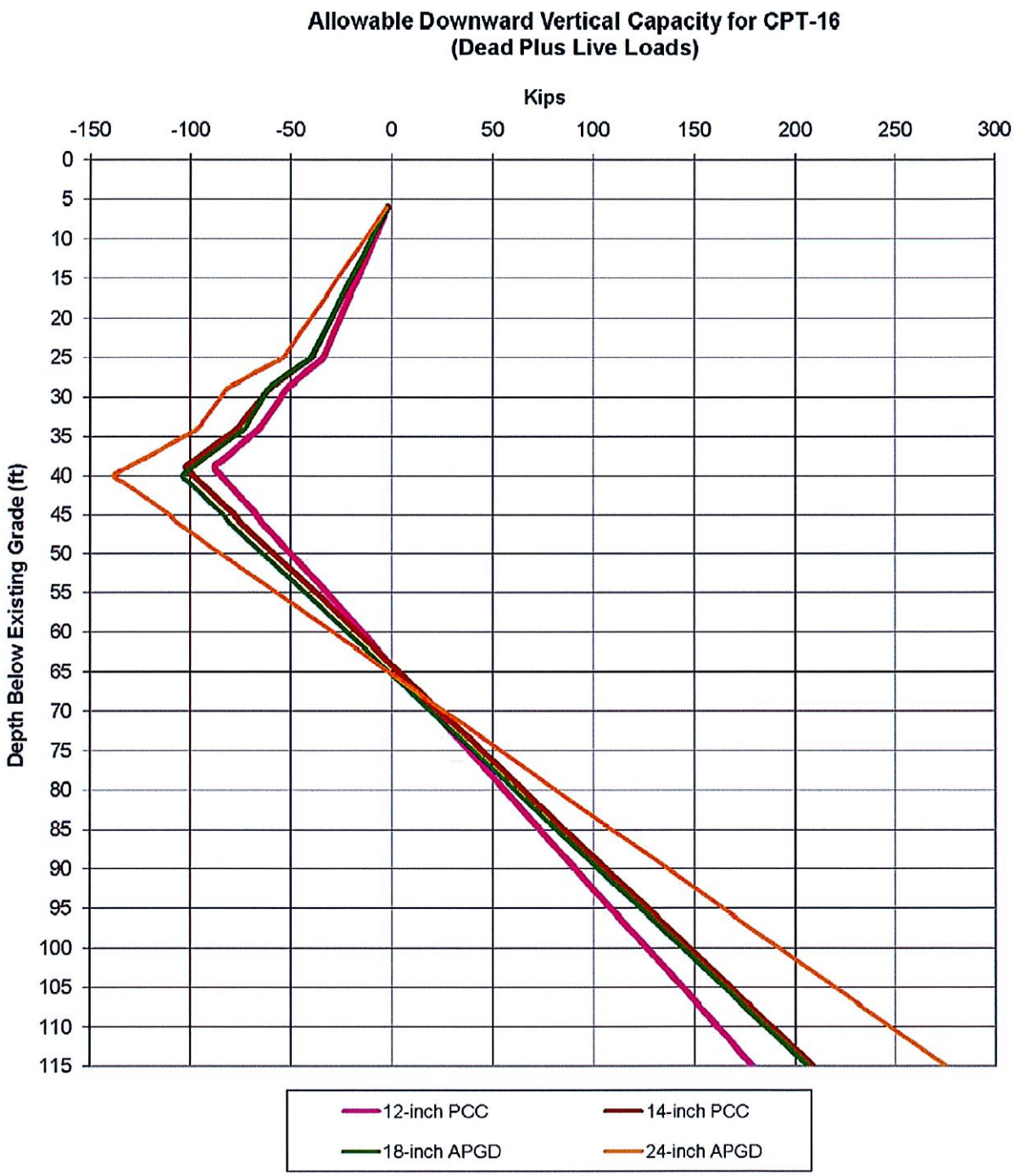


VERTICAL PILE CAPACITIES

Targa Terminal
Stockton, California

TRC 185908 **FIGURE 5A**

FILE NAME: Z:\Current\Targa Terminal_Stockton\Fig5A_Vertical Pile Capacities.dwg | Layout Tab: 8x11



VERTICAL PILE CAPACITIES FOR CPT-16

Targa Terminal
Stockton, California

TRC | 185908 | **FIGURE 5B**

FILE NAME: Z:\Current\Targa Terminal_Stockton\Fig5B_Vertical Pile Capacities for CPT-16.dwg | Layout Tab: 8x11

APPENDIX A

FIELD INVESTIGATION

Our field investigation consisted of a surface reconnaissance and a subsurface exploration program using truck-mounted, hollow-stem auger drilling and Cone Penetration Test (CPT) equipment. Three 8-inch diameter exploratory borings were drilled on August 11, 2011 to a maximum depth of 65 feet. Seventeen CPTs were advanced to depths ranging from 35 to 115½ feet on August 10, 2011 through August 12, 2011. CPT data was obtained at 0.16-foot intervals and consisted of cone tip resistance, sleeve friction, dynamic pore pressure and other parameters. The data obtained was correlated using the references cited, to determine the indicated soil type, shear strength, equivalent Standard Penetration Test (SPT), N-value (blows per foot), and other parameters. The approximate locations of the exploratory borings and CPTs are shown on the Site Plan, Figure 2. The soils encountered were continuously logged in the field by our representative and described in accordance with the Unified Soil Classification System (ASTM D2488). The logs of the borings and CPTs, as well as a key to the classification of the soil, are included as part of this appendix.

The locations of the borings and CPTs were approximately determined by Global Positioning Systems (GPS) hand-held equipment. Elevations of the borings and CPTs were determined by hand level equipment and interpolation from plan contours. The locations and elevations of the borings and CPT's should be considered accurate only to the degree implied by the method used.

Representative soil samples were obtained from the borings at selected depths. All samples were returned to our laboratory for evaluation and appropriate testing. Penetration resistance blow counts were obtained by dropping a 140-pound hammer 30 inches. Modified California 3.0-inch outside diameter (O.D.) samples and Standard Penetration Test (SPT) 2-inch O.D. samples were obtained by driving the samplers 18 inches and recording the number of hammer blows for each 6 inches of penetration. Relatively undisturbed samples were also obtained with 2.875-inch inside diameter Shelby Tube sampler, which were hydraulically pushed. Unless otherwise indicated, the blows per foot recorded on the boring logs represent the accumulated number of blows required to drive the samplers the last two 6-inch increments. When using the SPT sampler, the sum of the last two 6-inch increments is the uncorrected SPT measured blow count. The various samplers are denoted at the appropriate depth on the boring logs and symbolized as shown on Figure A-1.

Field tests included an evaluation of the unconfined compressive strength of the soil samples using a pocket penetrometer device. The results of the these tests are presented on the individual boring logs at the appropriate sample depths.

The attached boring and CPT logs and related information depict subsurface conditions at the locations indicated and on the date designated on the logs. Subsurface conditions at other locations may differ from conditions occurring at these boring and CPT locations. The passage of time may result in altered subsurface conditions due to environmental changes. In addition, any stratification lines on the logs represent the approximate boundary between soil types and the transition may be gradual.

* * * * * * * * * * * * *

PRIMARY DIVISIONS			SOIL TYPE	SECONDARY DIVISIONS
COARSE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE)	GRAVELS (MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE)	CLEAN GRAVELS (Less than 5% Fines)	GW	Well graded gravels, gravel–sand mixtures, little or no fines
			GP	Poorly graded gravels or gravel–sand mixtures, little or no fines
		GRAVEL WITH FINES	GM	Silty gravels, gravel–sand–silt mixtures, plastic fines
			GC	Clayey gravels, gravel–sand–clay mixtures, plastic fines
	SANDS (MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE)	CLEAN SANDS (Less than 5% Fines)	SW	Well graded sands, gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
		SANDS WITH FINES	SM	Silty sands, sand–silt–mixtures, non–plastic fines
			SC	Clayey sands, sand–clay mixtures, plastic fines
FINE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE)	SILTS AND CLAYS (LIQUID LIMIT IS LESS THAN 50 %)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS (LIQUID LIMIT IS GREATER THAN 50 %)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			PT	Peat and other highly organic soils

DEFINITION OF TERMS

U.S. STANDARD SIEVE SIZE: 200, 40, 10, 4

CLEAR SQUARE SIEVE OPENINGS: 3/4", 3", 12"

SILTS AND CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

0.08, 0.4, 2, 5, 19, 76mm

GRAIN SIZES

TERZAGHI SPLIT SPOON STANDARD PENETRATION

MODIFIED CALIFORNIA

ROCK CORE

PITCHER TUBE

NO RECOVERY

SAMPLERS

SAND AND GRAVEL	BLOWS/FOOT*
VERY LOOSE	0–4
LOOSE	4–10
MEDIUM DENSE	10–30
DENSE	30–50
VERY DENSE	OVER 50

RELATIVE DENSITY

SILTS AND CLAYS	STRENGTH+	BLOWS/FOOT*
VERY SOFT	0–1/4	0–2
SOFT	1/4–1/2	2–4
MEDIUM STIFF	1/2–1	4–8
STIFF	1–2	8–16
VERY STIFF	2–4	16–32
HARD	OVER 4	OVER 32

CONSISTENCY

*Number of blows of 140 pound hammer falling 30 inches to drive a 2–inch O.D. (1–3/8 inch I.D.) split spoon (ASTM D–1586).
+Unconfined compressive strength in tons/sq.ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D–1586), pocket penetrometer, torvane, or visual observation.

KEY TO EXPLORATORY BORING LOGS

Unified Soil Classification System (ASTM D–2487)

TRC

FIGURE A–1

EXPLORATORY BORING: EB-1

DRILL RIG: MOBILE B-57
BORING TYPE: 8-INCH HOLLOW
LOGGED BY: RAC
START DATE: 8-11-11 FINISH DATE: 8-11-11

PROJECT NO: 185908
PROJECT: TARGA TERMINAL
LOCATION: STOCKTON, CA
COMPLETION DEPTH: 65.0 FT.

This log is a part of a report by TRC, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

Undrained Shear Strength (ksf): ○ Pocket Penetrometer; △ Torvane; ● Unconfined Compression; ▲ U-U Triaxial Compression

ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
18.2	0	SURFACE ELEVATION: 18 FT. (+/-)						
		SILTY CLAY (CL-ML) [FILL] very stiff, moist, brown, moderate plasticity, fine to coarse sand. Plasticity Index = 18, Liquid Limit = 45	CL-ML, FILL	18	▲	25	95	
14.5		**SANDY LEAN CLAY (CL) [FILL]** stiff, moist, light brown, low plasticity, fine to medium sand	CL, FILL	22	▲	24	93	
	5			19	▲	35	84	
12.0		**LEAN CLAY WITH SAND (CL) [FILL?]** stiff, moist, mottled gray and brown, low plasticity, fine to medium sand, trace organics	CL	12	▲	45	74	
	10							
4.5								
4.0		**SANDY LEAN CLAY (CL) [FILL?]** medium stiff, moist, black, low plasticity, fine to coarse sand	CL	9	▲	49	68	
	15	**LEAN CLAY WITH SAND (CL) [FILL?]** medium stiff, moist, mottled gray and brown, low plasticity, fine to coarse sand. becoming sandier	CL					
-1.1		**FAT CLAY (CH)** medium stiff, moist, dark gray, high plasticity, organics	CH	11	▲	75	50	
	20							
-3.6		**LEAN CLAY WITH SAND (CL)** medium stiff, moist, olive gray, low plasticity, fine to medium sand	CL	13	▲	32	88	
	25							
-8.6		**SANDY LEAN CLAY (CL)** hard, moist, gray, low plasticity, fine to coarse sand	CL	54	▲	18	112	42
-11.8	30							

Continued Next Page

GROUND WATER OBSERVATIONS:
▽: FREE GROUND WATER MEASURED DURING DRILLING AT 29.5 FEET

LA CORP.GDT 9/26/11 MV* JPT

EXPLORATORY BORING: EB-1 Cont'd

DRILL RIG: MOBILE B-57
BORING TYPE: 8-INCH HOLLOW
LOGGED BY: RAC
START DATE: 8-11-11 FINISH DATE: 8-11-11

PROJECT NO: 185908
PROJECT: TARGA TERMINAL
LOCATION: STOCKTON, CA
COMPLETION DEPTH: 65.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-11.8	30	**CLAYEY SAND (SC)** dense, moist, gray, fine to medium sand	SC					
-14.8	35	**SANDY LEAN CLAY (CL)** medium stiff, wet, gray, low plasticity, fine to coarse sand	CL	13		29	81	
	40	very stiff, low to moderate plasticity		27		26	96	
-24.8		**CLAYEY SAND (SC)** loose, moist, gray, fine to medium sand	SC	20		26	96	
-26.6	45	**SANDY LEAN CLAY (CL)** very stiff, moist, gray, low plasticity, fine to coarse sand	CL					
-28.6	50	**POORLY GRADED SAND WITH CLAY (SP-SC)** medium dense, moist, gray, fine to coarse sand	SP-SC	22		26	100	9
-33.6	55	**SILTY CLAY (CL)** medium stiff, moist, dark gray, low plasticity	CL	24		28		
-41.6	60			13		38	82	

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

Continued Next Page

GROUND WATER OBSERVATIONS:
▽: FREE GROUND WATER MEASURED DURING DRILLING AT 29.5 FEET

LA_CORP.GDT 9/26/11 MV* JPT

EXPLORATORY BORING: EB-1 Cont'd

DRILL RIG: MOBILE B-57
BORING TYPE: 8-INCH HOLLOW
LOGGED BY: RAC
START DATE: 8-11-11 FINISH DATE: 8-11-11

PROJECT NO: 185908
PROJECT: TARGA TERMINAL
LOCATION: STOCKTON, CA
COMPLETION DEPTH: 65.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-41.8	60	**LEAN CLAY WITH SAND (CL)** medium stiff, moist, gray, low plasticity, fine sand	CL					
			CL					
-46.1		stiff		27		16	109	
-46.8	65	**POORLY GRADED SAND (SP)** medium dense, moist, gray, fine to coarse sand	SP					
		Bottom of boring at 65 feet						
	70							
	75							
	80							
	85							
	90							

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
▽: FREE GROUND WATER MEASURED DURING DRILLING AT 29.5 FEET

LA CORP.GDT 9/26/11 MV JPT

EXPLORATORY BORING: EB-2

DRILL RIG: MOBILE B-57
BORING TYPE: 8-INCH HOLLOW
LOGGED BY: RAC
START DATE: 8-11-11 FINISH DATE: 8-11-11

PROJECT NO: 185908
PROJECT: TARGA TERMINAL
LOCATION: STOCKTON, CA
COMPLETION DEPTH: 65.0 FT.

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SURFACE ELEVATION: 17 FT. (+/-)

ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
16.5	0	**SANDY LEAN CLAY (CL) [FILL]** hard, moist, light brown, low plasticity, fine to medium sand Plasticity Index = 12, Liquid Limit = 35	CL, FILL	26		17	111	
		increasing sand		15		17	91	
	5			17		21	92	
9.8		**CLAYEY SAND (SC) [FILL]** loose, moist, brown, fine to coarse sand	SC, FILL	12		33	80	20
	10							
4.8		**SANDY LEAN CLAY (CL) [FILL?]** medium stiff, moist, gray, low plasticity, fine to coarse sand	CL					
2.8		**LEAN CLAY WITH SAND (CL) [FILL?]** medium stiff, moist, gray, low plasticity, fine to medium sand	CL	14		33	88	
	15							
-1.5		**FAT CLAY (CH)** soft, moist, dark gray, high plasticity, fine to medium sand, organics	CH	9		42	74	
	20							
-5.3		**CLAYEY SAND (SC)** medium dense, moist, dark gray, fine to medium sand	SC	25		19	110	
	25							
		becoming sandier		28		28		
-13.5	30	*Continued Next Page*						

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
∇: FREE GROUND WATER MEASURED DURING DRILLING AT 28.5 FEET

LA CORP.GDT 9/26/11 MV* JPT

EXPLORATORY BORING: EB-2 Cont'd

DRILL RIG: MOBILE B-57
BORING TYPE: 8-INCH HOLLOW
LOGGED BY: RAC
START DATE: 8-11-11 FINISH DATE: 8-11-11

PROJECT NO: 185908
PROJECT: TARGA TERMINAL
LOCATION: STOCKTON, CA
COMPLETION DEPTH: 65.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-13.5	30	**CLAYEY SAND (SC)** medium dense, moist, dark gray, fine to medium sand	SC					
-15.3		**SILTY SAND (SM)** medium dense, moist, gray, fine to coarse sand	SM	44		18	110	18
	35							
-20.3		**SILTY CLAY (CL-ML)** stiff, moist, gray, low plasticity, fine sand	CL-ML	24		21		
	40							
-25.3		**LEAN CLAY (CL)** stiff, moist, gray, low plasticity, trace fine sand	CL	29		26	97	
	45							
-30.3		**POORLY GRADED SAND (SP)** dense, moist, gray, fine to coarse sand	SP	29		24		
	50							
	55	dense		43		25		5
-43.5	60			42		20		

Continued Next Page

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
▽: FREE GROUND WATER MEASURED DURING DRILLING AT 28.5 FEET

LA CORP.GDT 9/26/11 MV* JPT

EXPLORATORY BORING: EB-2 Cont'd

DRILL RIG: MOBILE B-57
BORING TYPE: 8-INCH HOLLOW
LOGGED BY: RAC
START DATE: 8-11-11 FINISH DATE: 8-11-11

PROJECT NO: 185908
PROJECT: TARGA TERMINAL
LOCATION: STOCKTON, CA
COMPLETION DEPTH: 65.0 FT.

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ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-43.5	60		**POORLY GRADED SAND (SP)** dense, moist, gray, fine to coarse sand	SP					
			medium dense		22	X	19		
-48.5	65		Bottom of boring at 65 feet						
	70								
	75								
	80								
	85								
	90								

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
▽: FREE GROUND WATER MEASURED DURING DRILLING AT 28.5 FEET

LA CORP.GDT 9/26/11 MV* JPT

EXPLORATORY BORING: EB-3

DRILL RIG: MOBILE B-57
BORING TYPE: 8-INCH HOLLOW
LOGGED BY: RAC
START DATE: 8-11-11 FINISH DATE: 8-11-11

PROJECT NO: 185908
PROJECT: TARGA TERMINAL
LOCATION: STOCKTON, CA
COMPLETION DEPTH: 65.0 FT.

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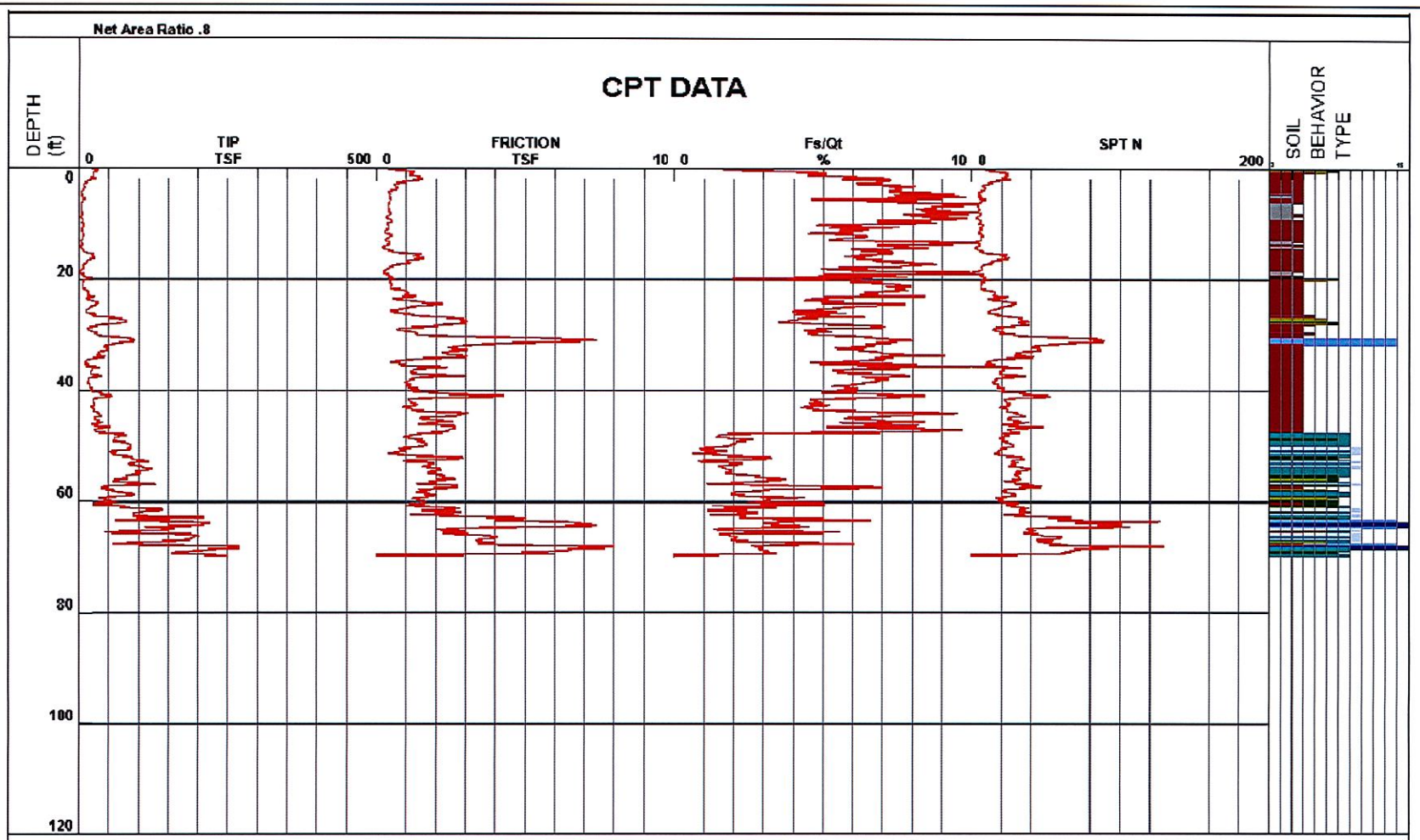
SURFACE ELEVATION: 19 FT. (+/-)

ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
19.3	0	**SANDY LEAN CLAY (CL) [FILL]** medium stiff, moist, brown, low plasticity, fine to coarse sand, fine to coarse gravel (sub-angular)	CL, FILL	27		8 9	103 100	
17.6		**SILTY SAND (SM) [FILL]** medium dense, moist, brown, fine to coarse sand	SM, FILL	13		42	74	
15.6	5	**SILT (MH) [FILL]** medium stiff, moist, dark brown, high plasticity, fine to medium sand Plasticity Index = 20, Liquid Limit = 55	MH	6		37	74	
				11		14	92	
9.6	10	**SILTY SAND (SP) [FILL?]** loose, moist, brown, fine sand	SM					
5.3	15	**SANDY LEAN CLAY (CL) [FILL?]** very stiff, moist, brown, low plasticity, fine sand	CL	14		29	79	64
2.6	20	**FAT CLAY WITH SAND (CH)** soft, moist, dark gray, high plasticity, fine to medium sand stiff	CH	5		88	50	
-2.7		Bottom of boring at 22 feet						
	25							
	30							

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:

LA CORP.GDT 9/26/11 MV* JPT



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

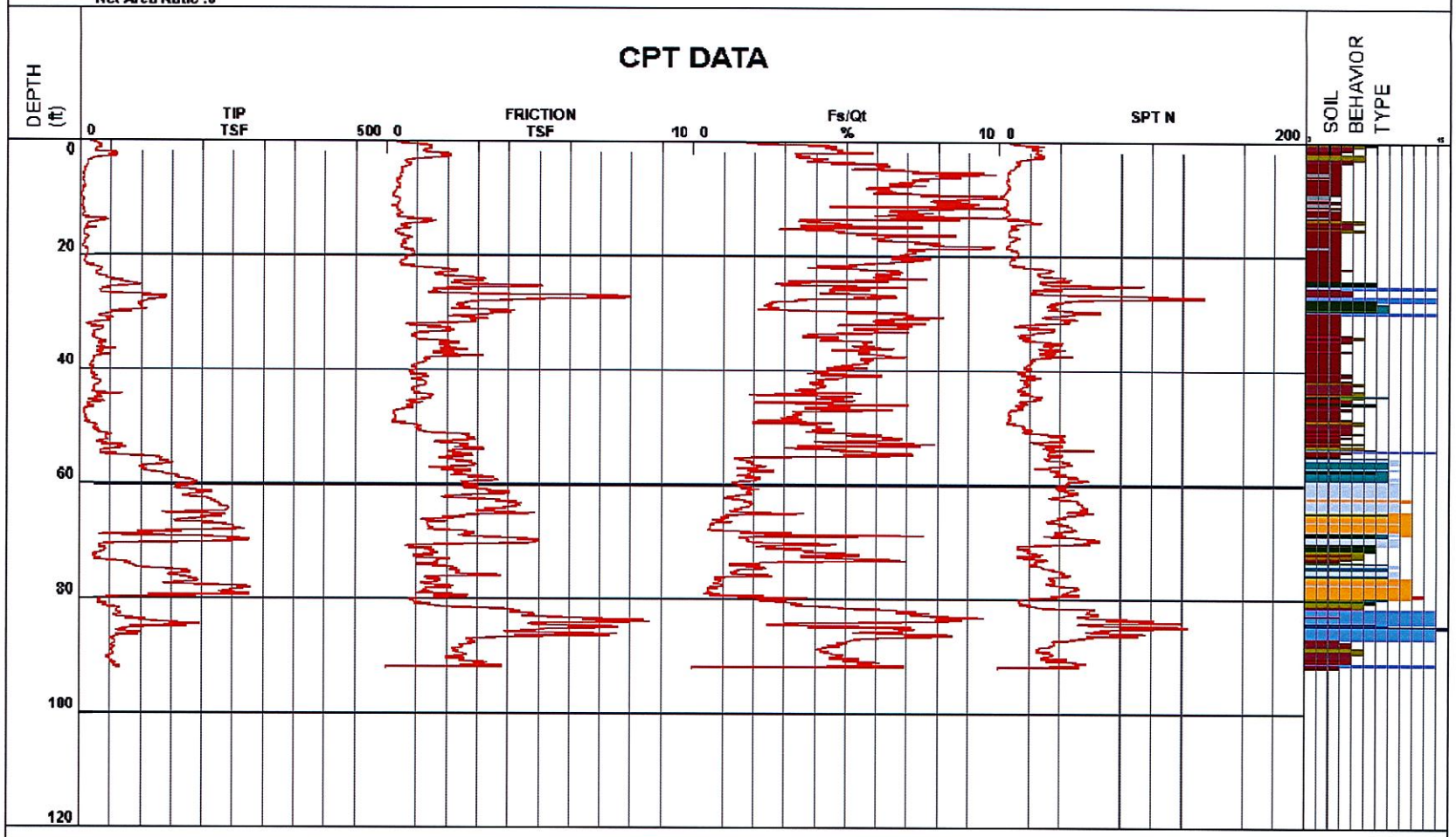
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-1**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-1.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

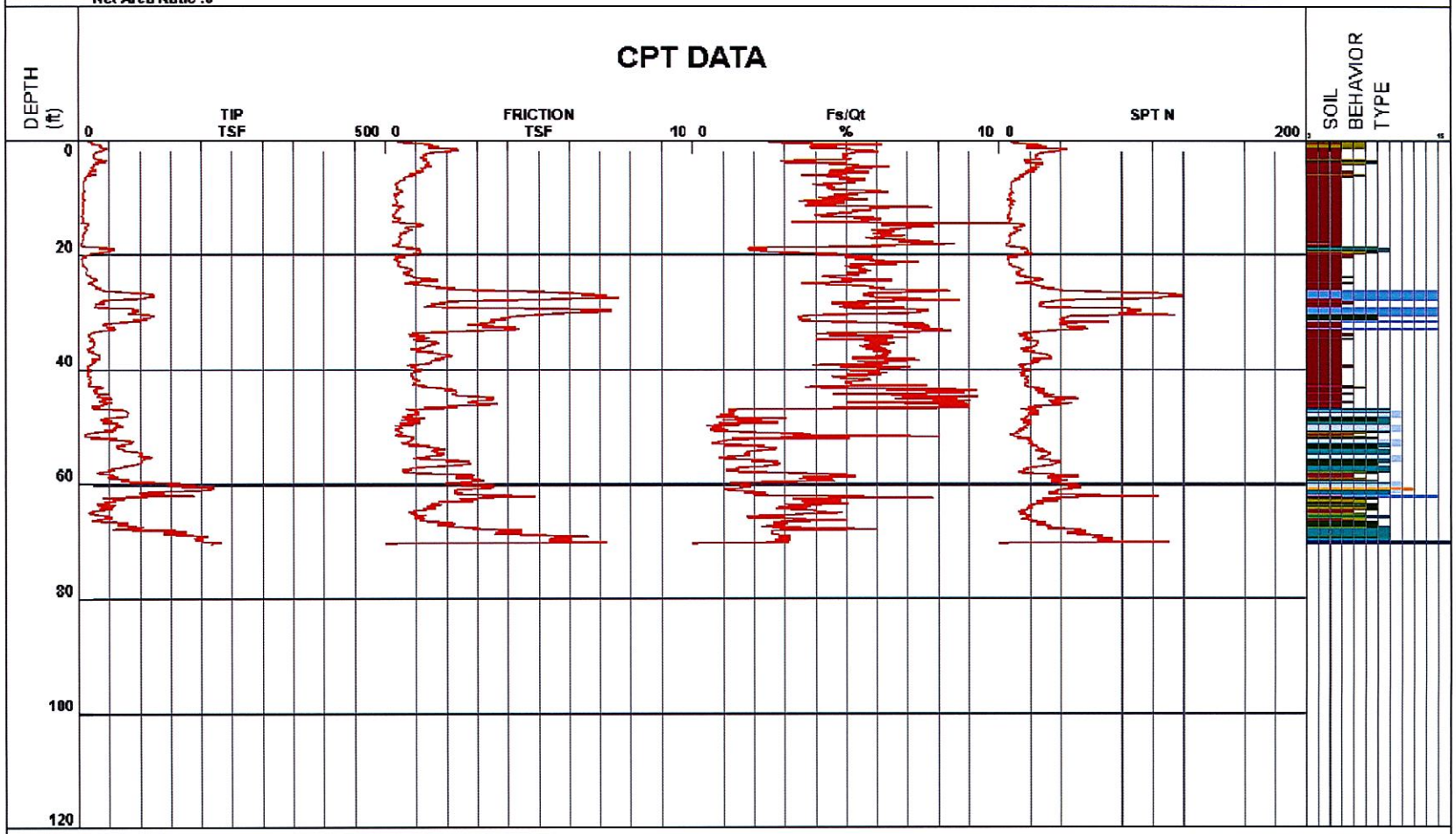
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-2**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-2.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

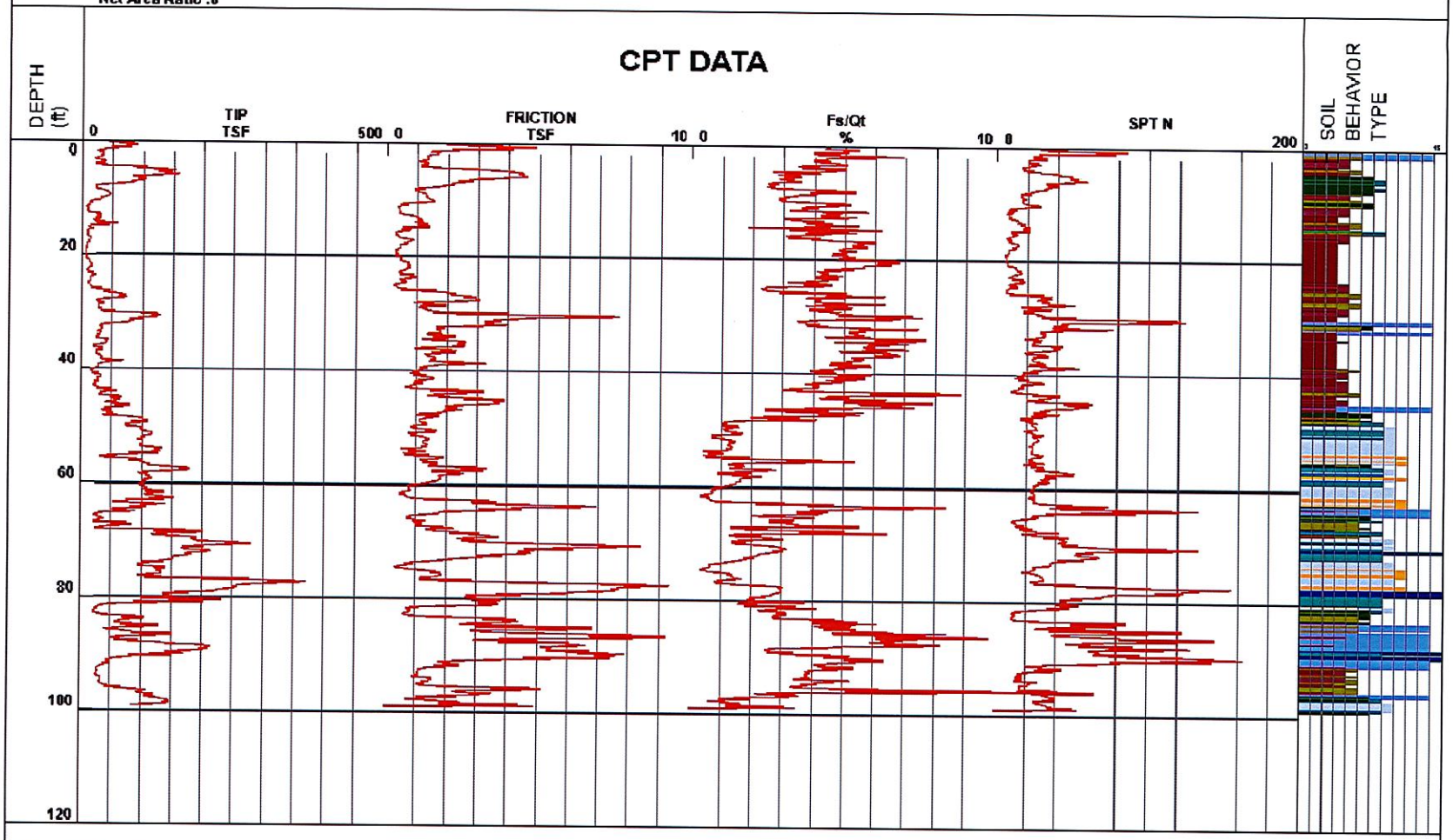
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-3**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-3.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

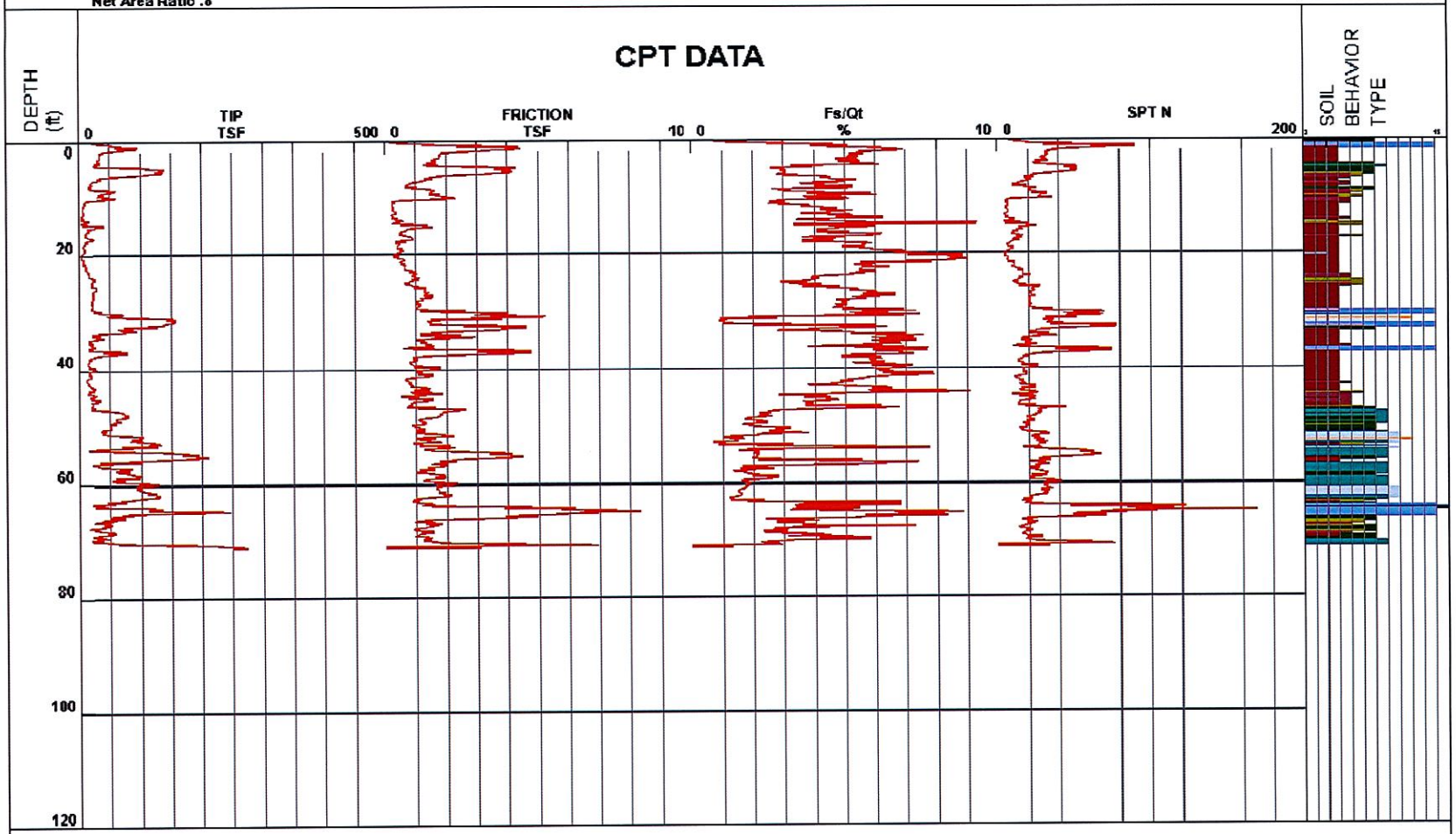
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-4**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-4.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

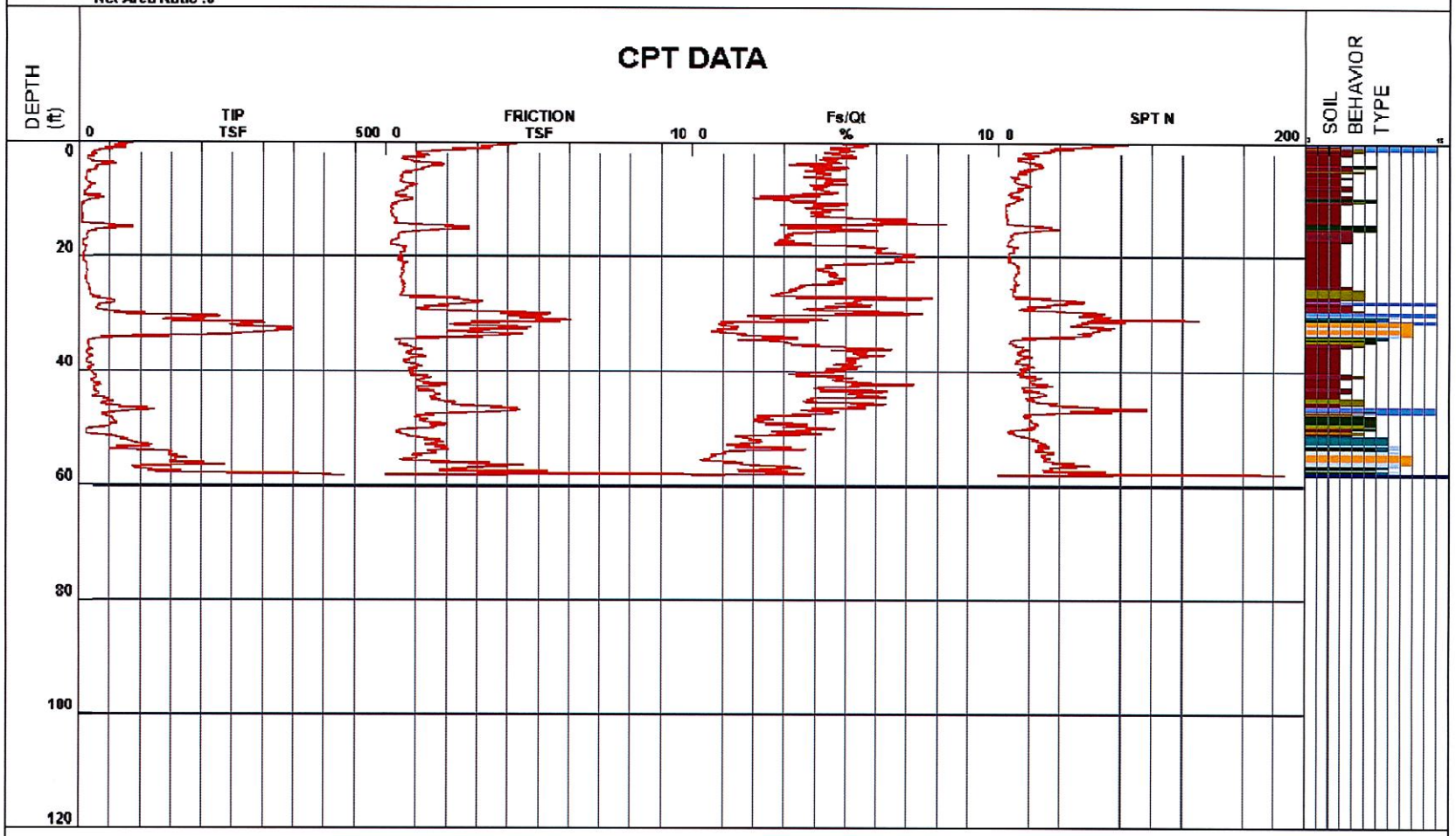
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-5**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-5.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

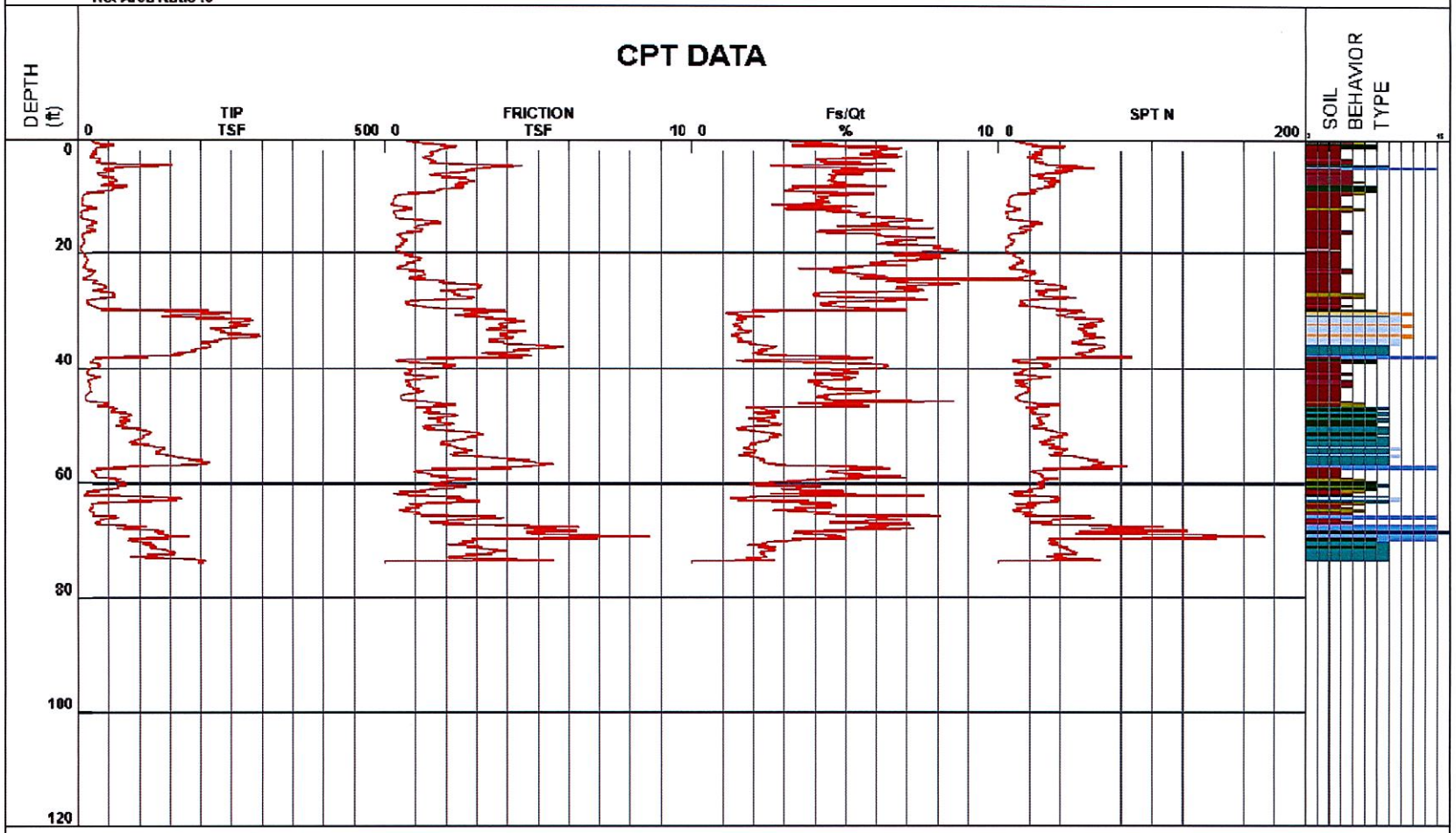
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-6**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-6.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

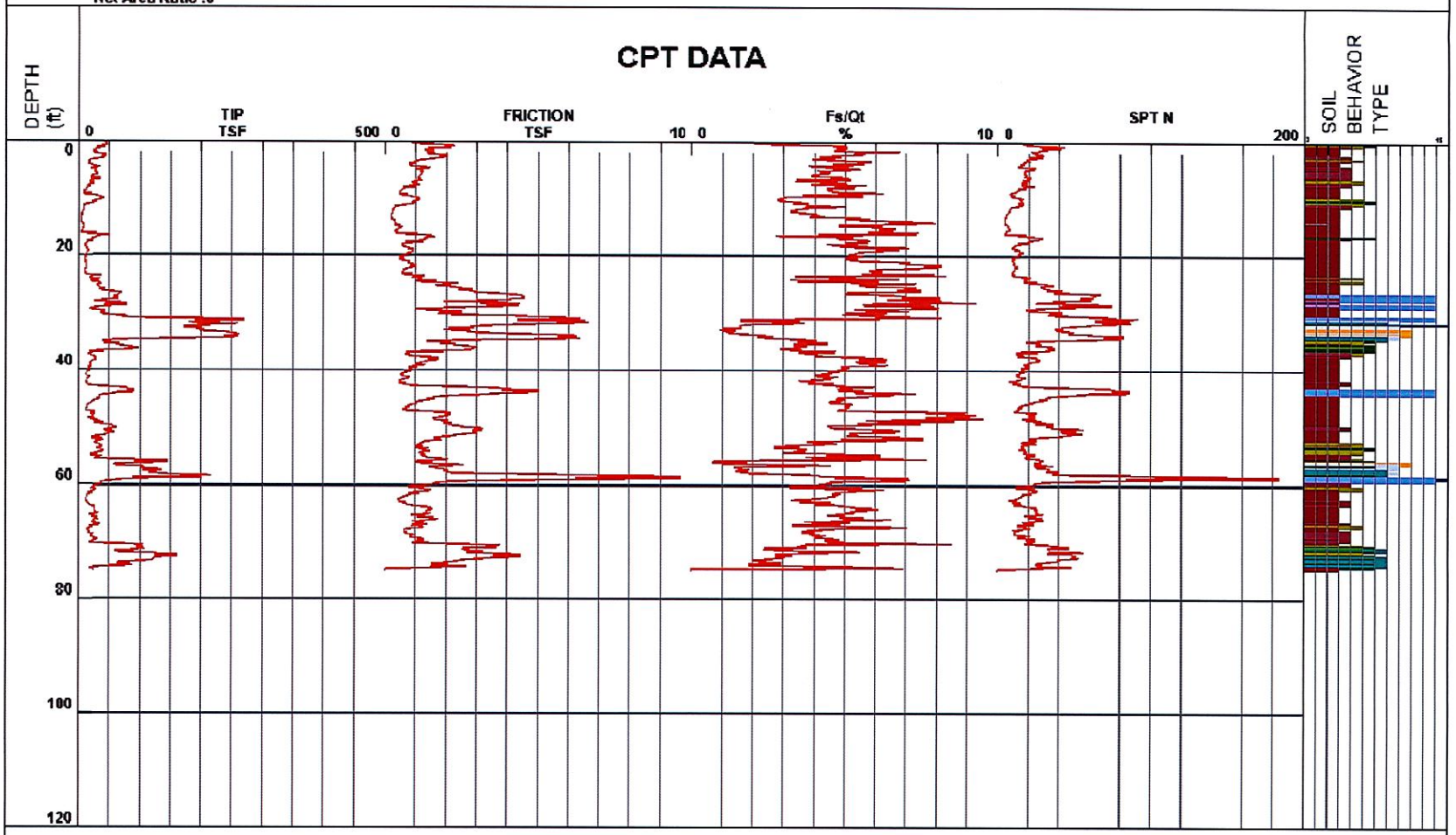
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-7**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-7.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

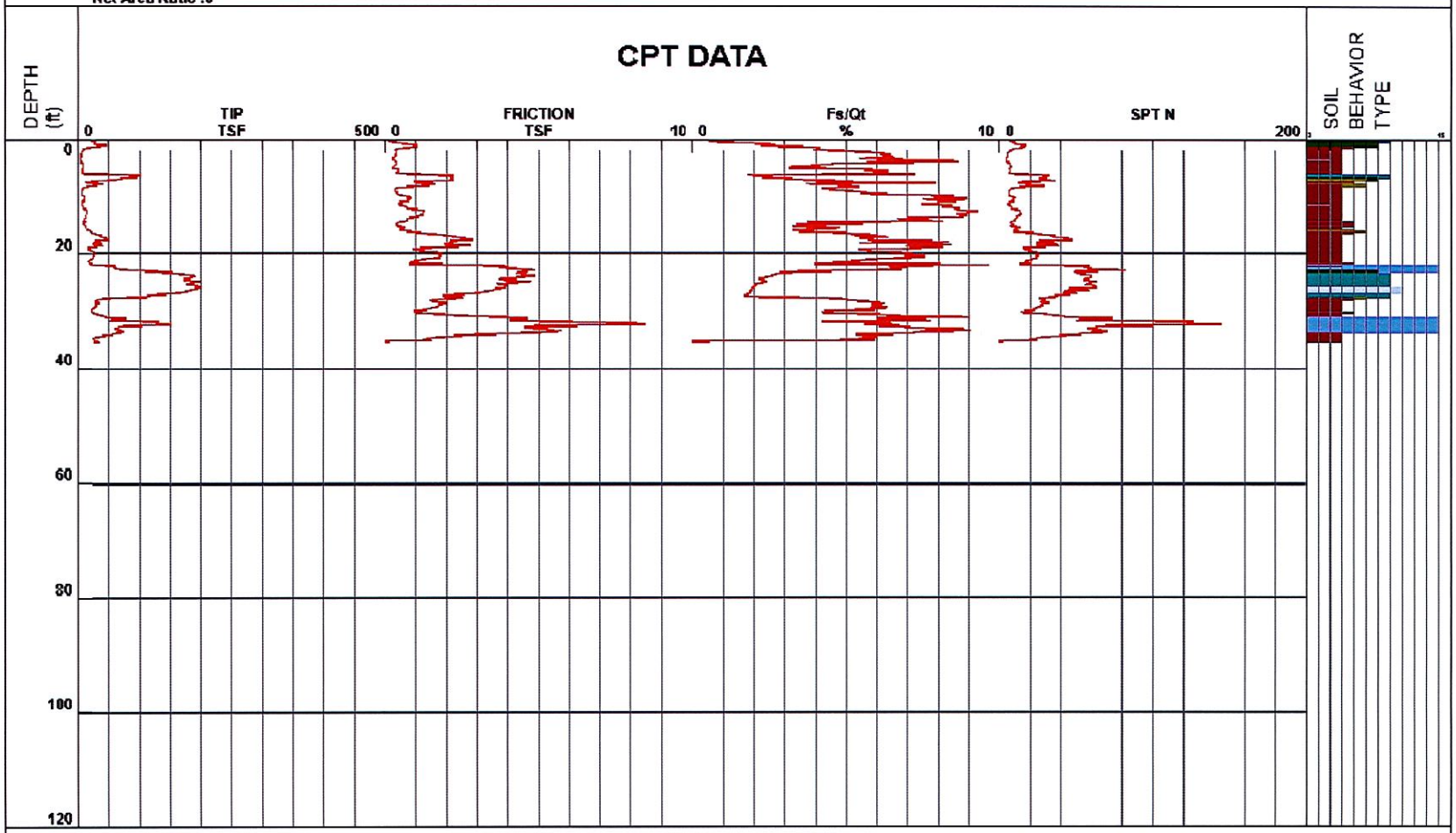
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-8**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-8.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

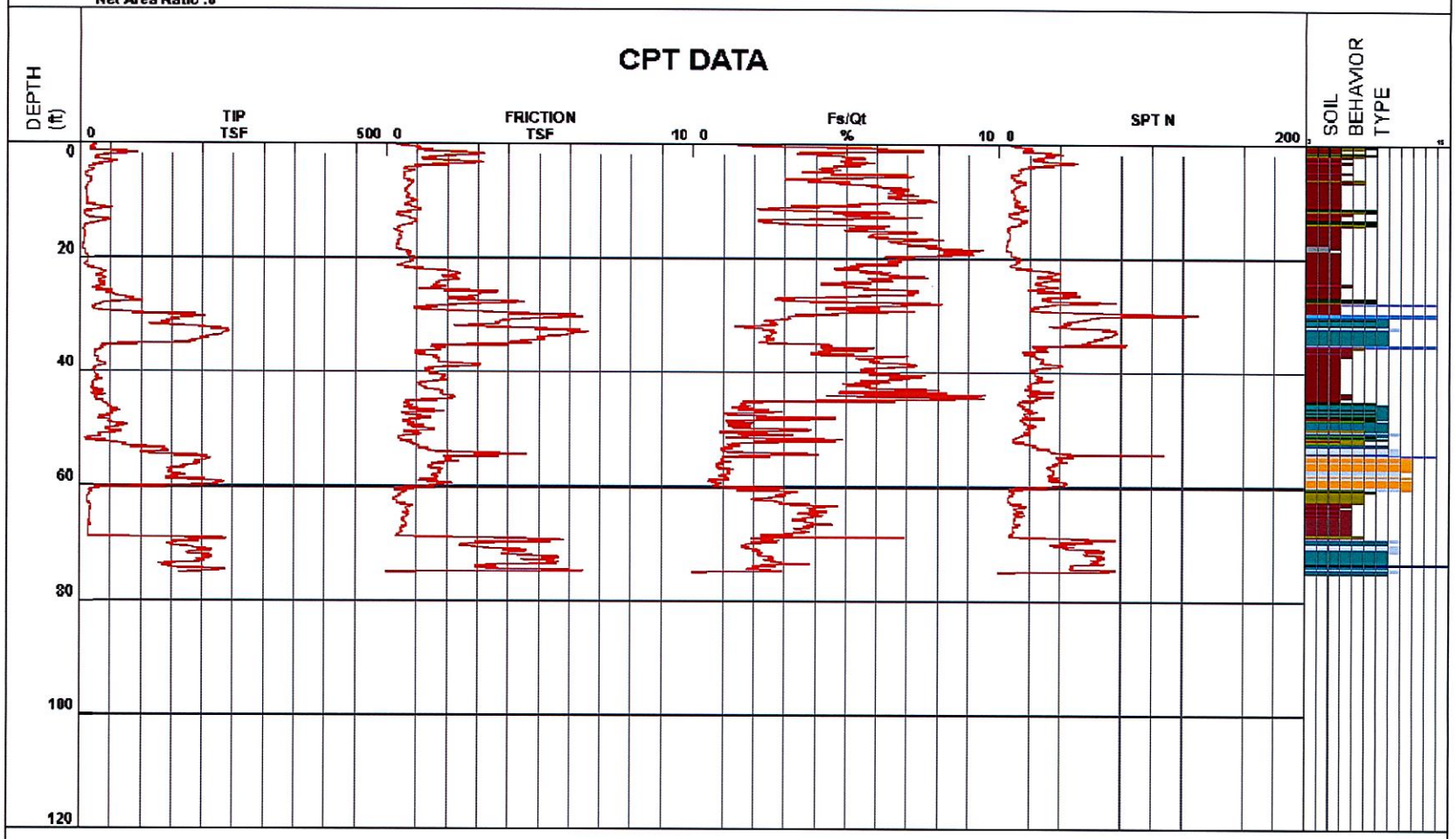
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-9**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-9.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

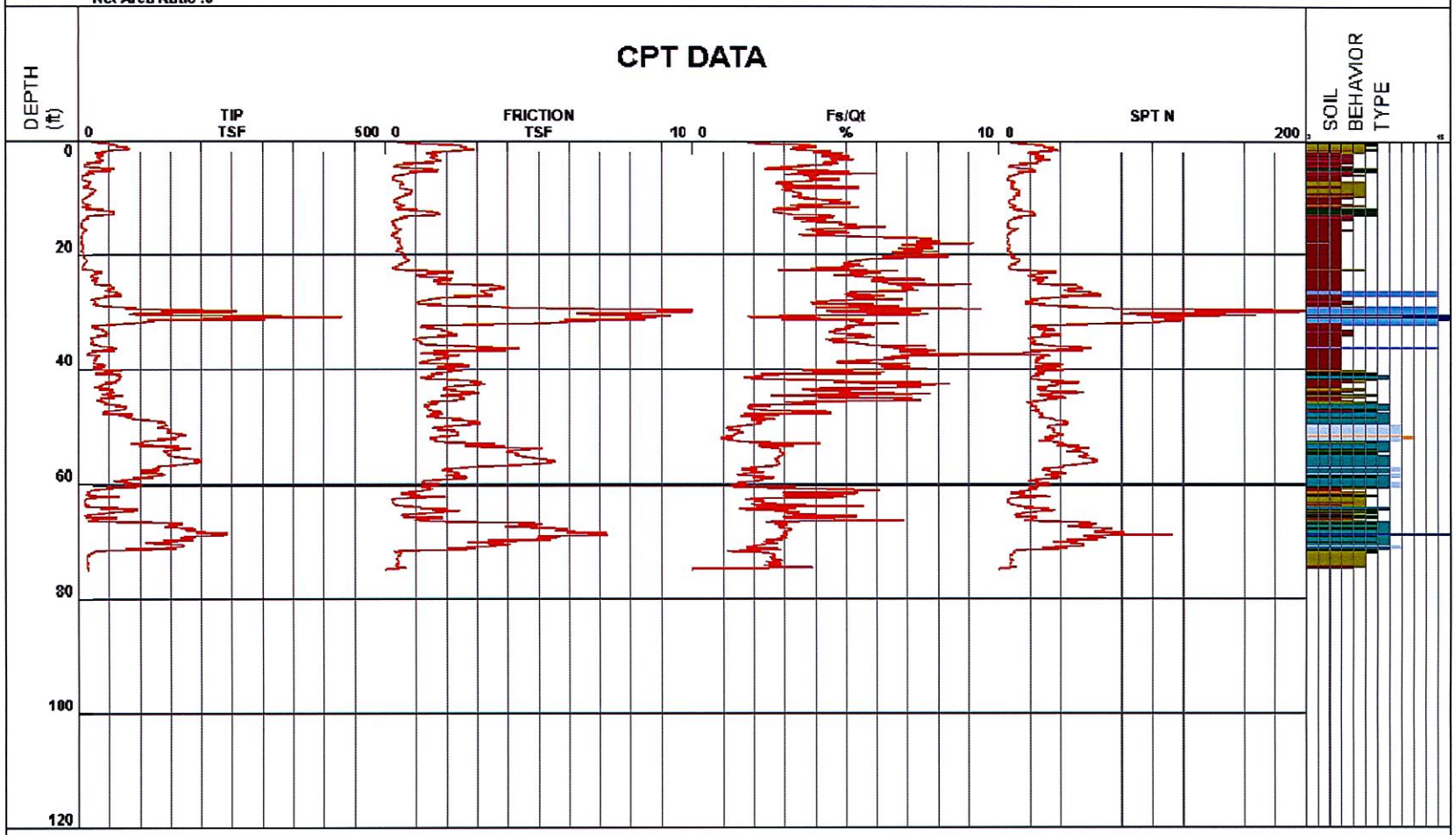
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-10**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-10.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

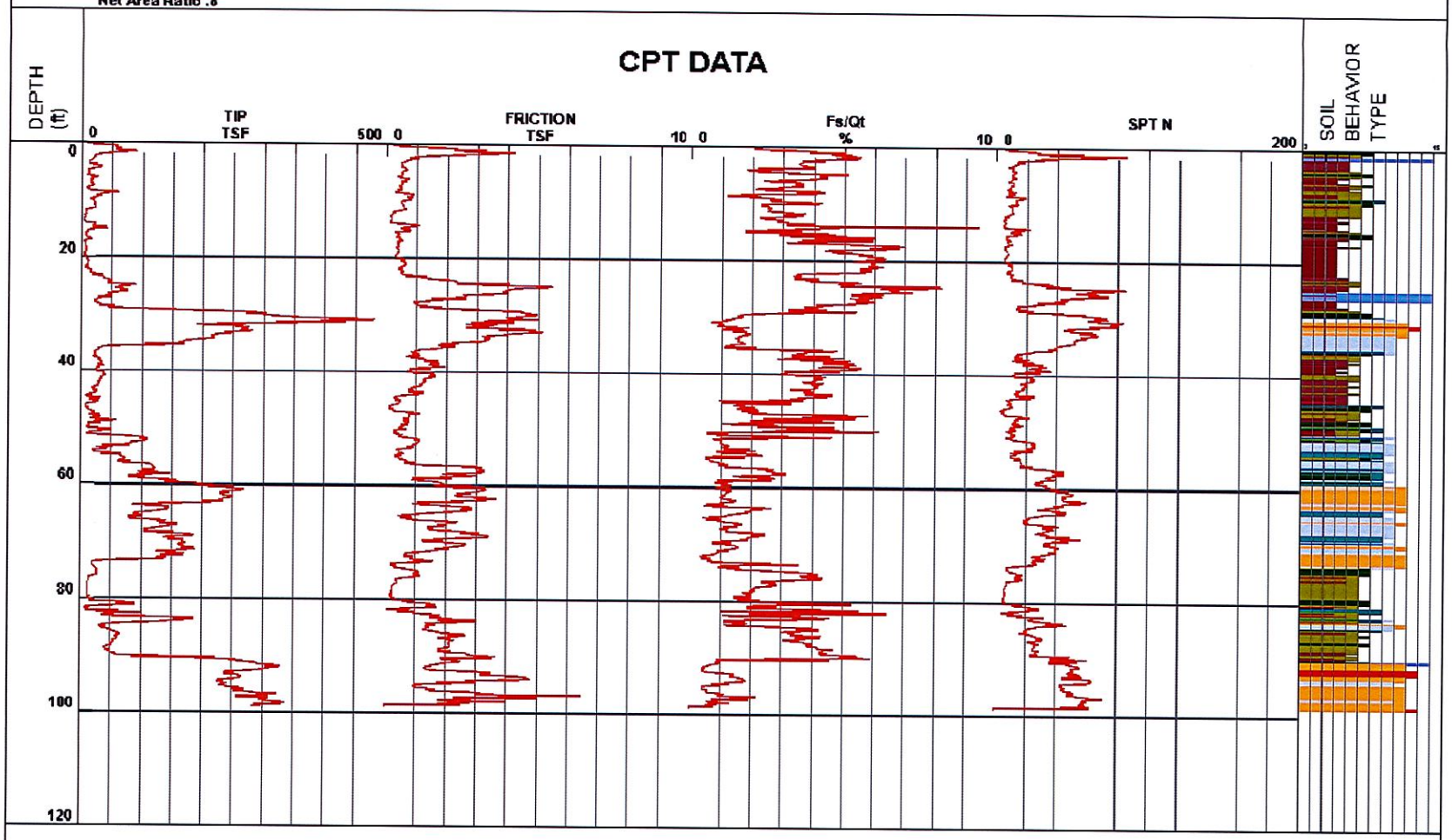
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-11**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-11.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

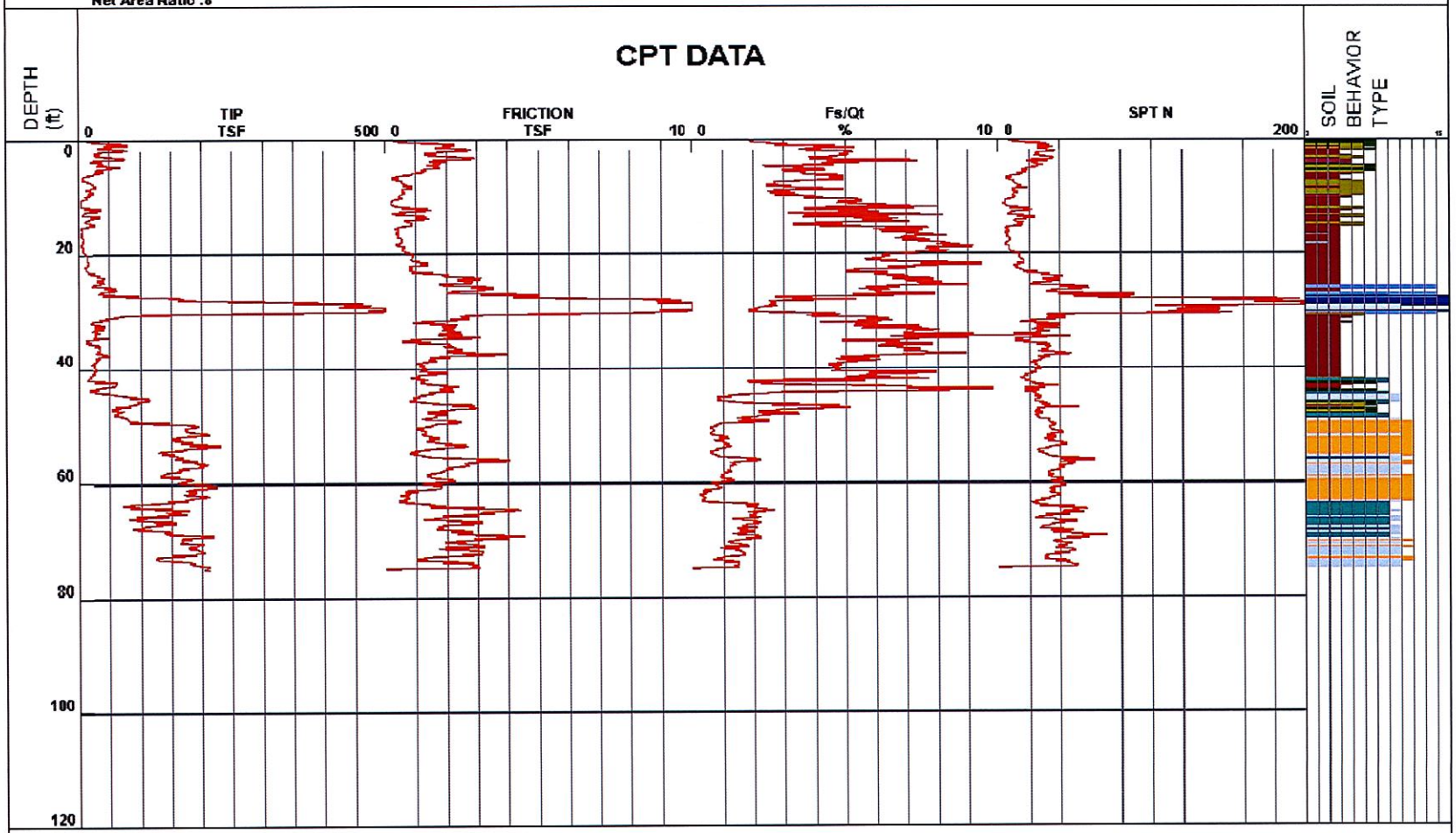
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-12**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-12.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

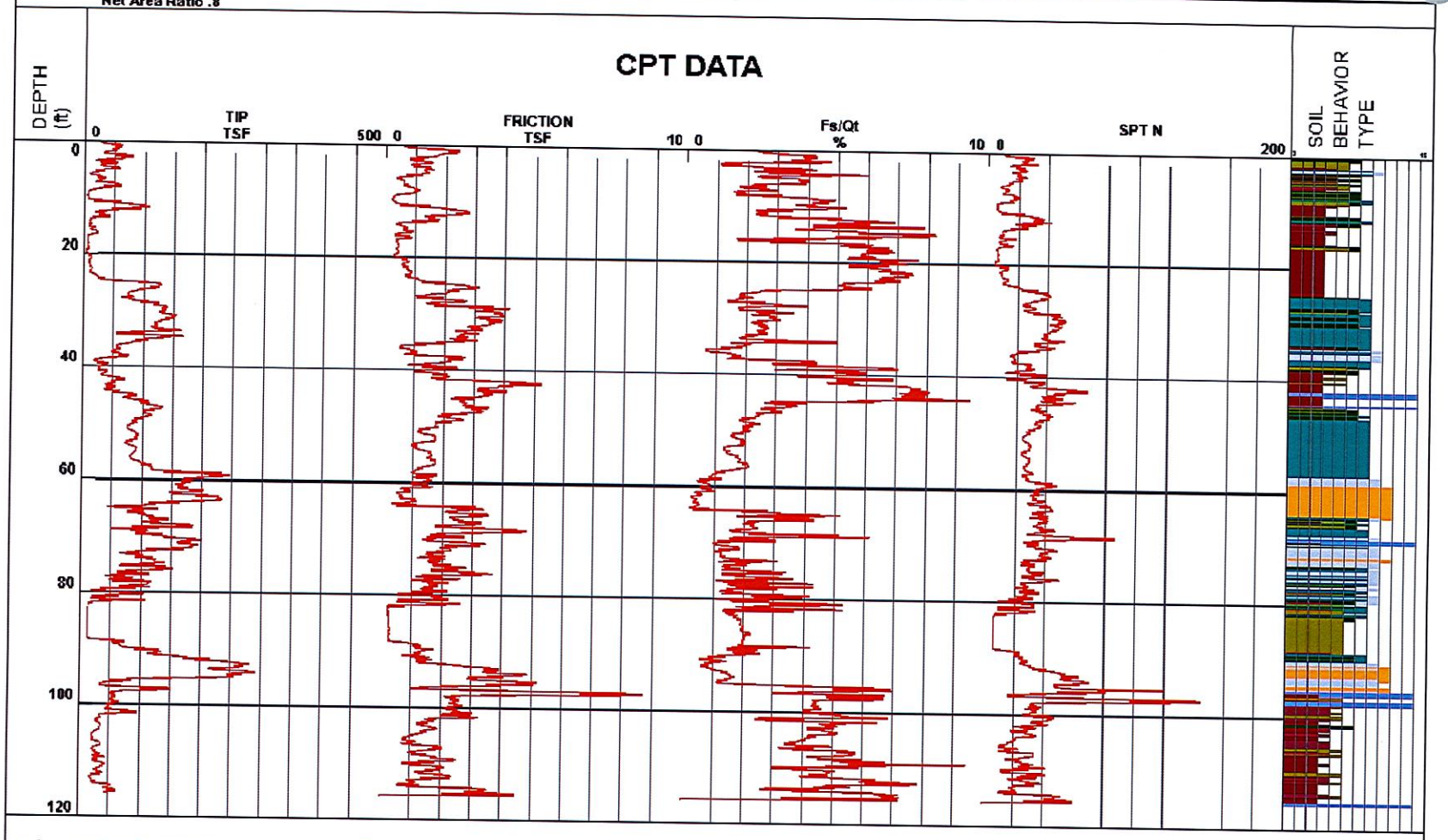
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC 185908 **CPT-13**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-13.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC 185908 **CPT-14**

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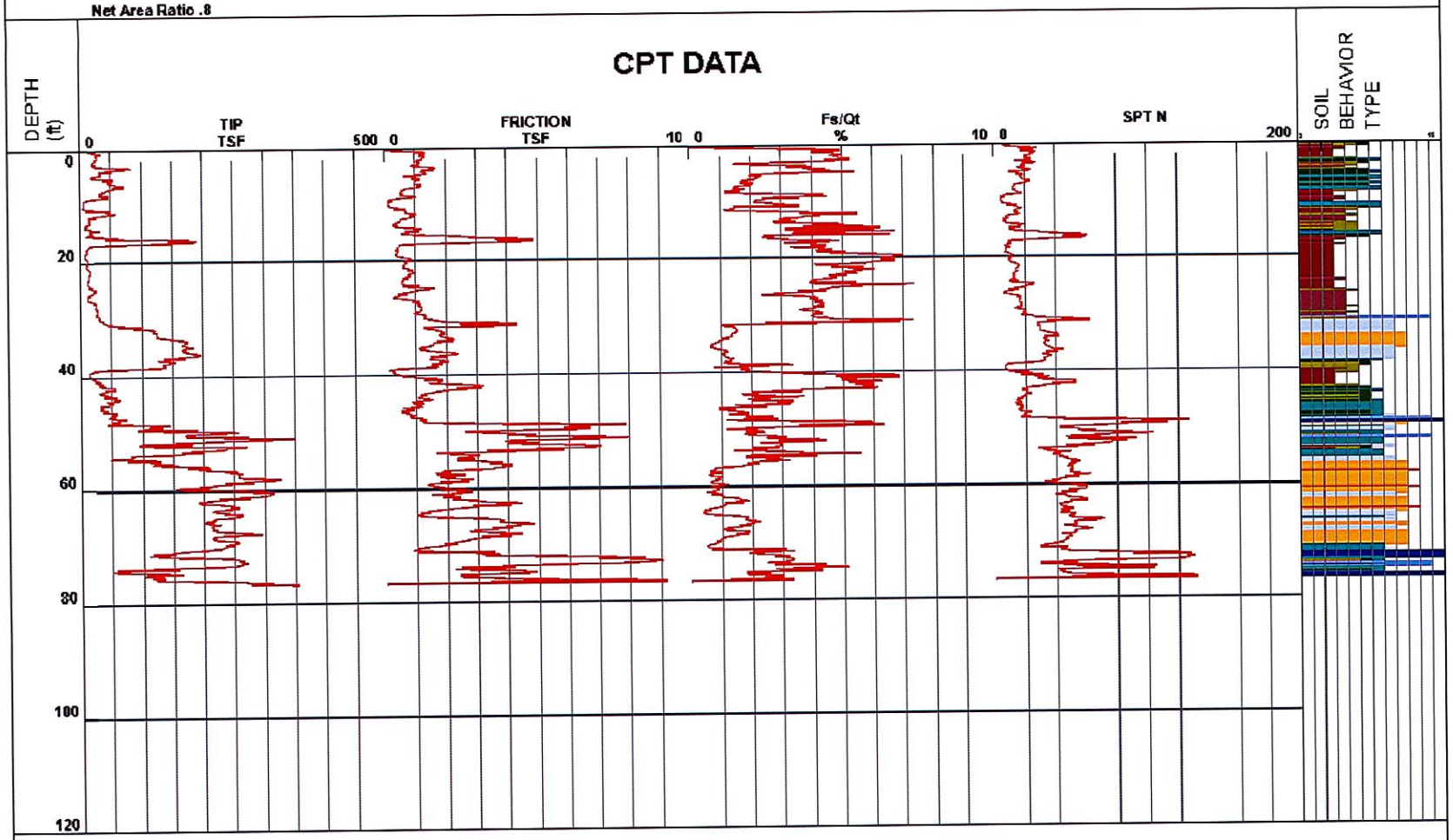
Net Area Ratio .8



1 - sensitive fine grained
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6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

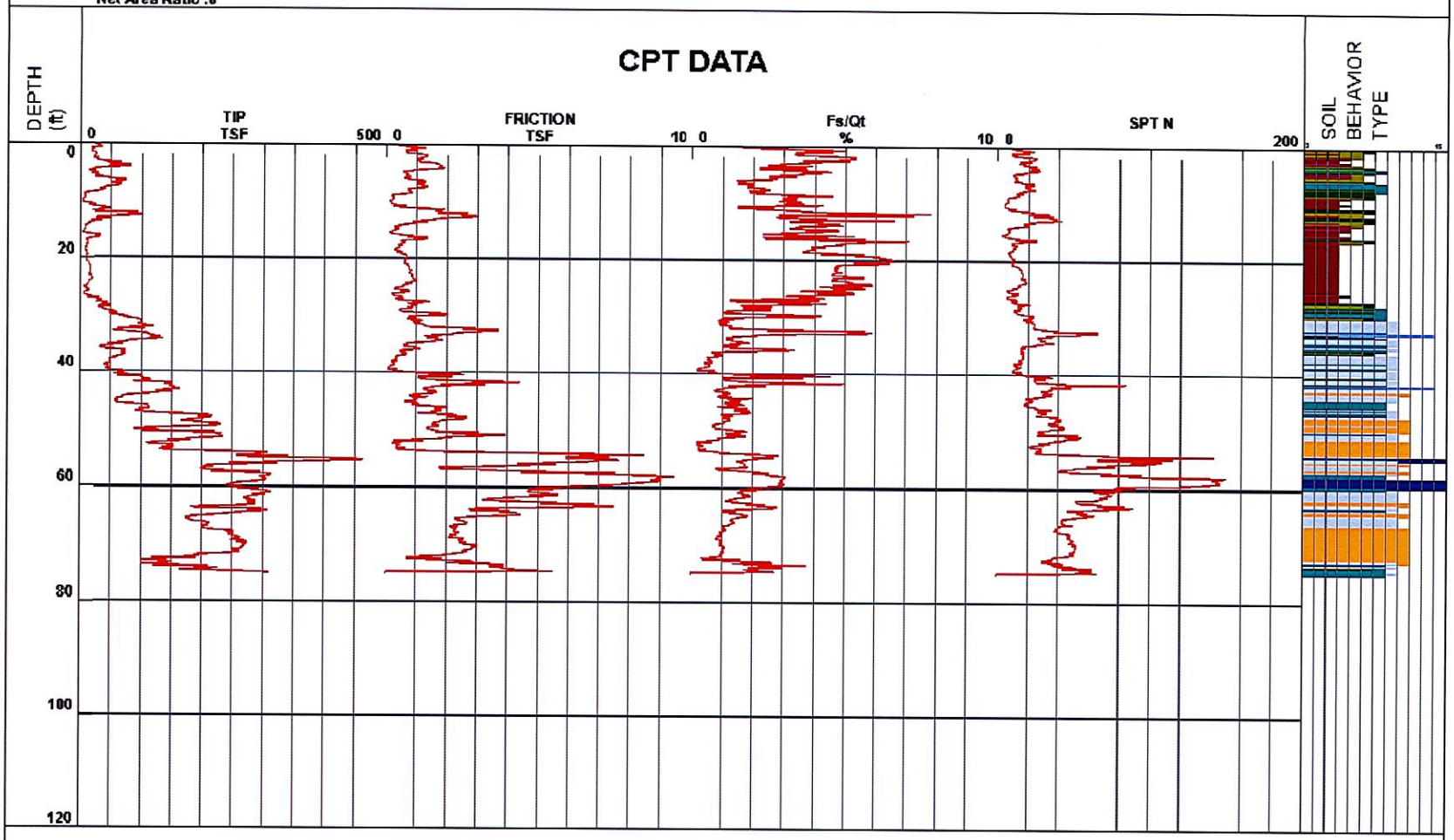
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC 185908 **CPT-15**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-15.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

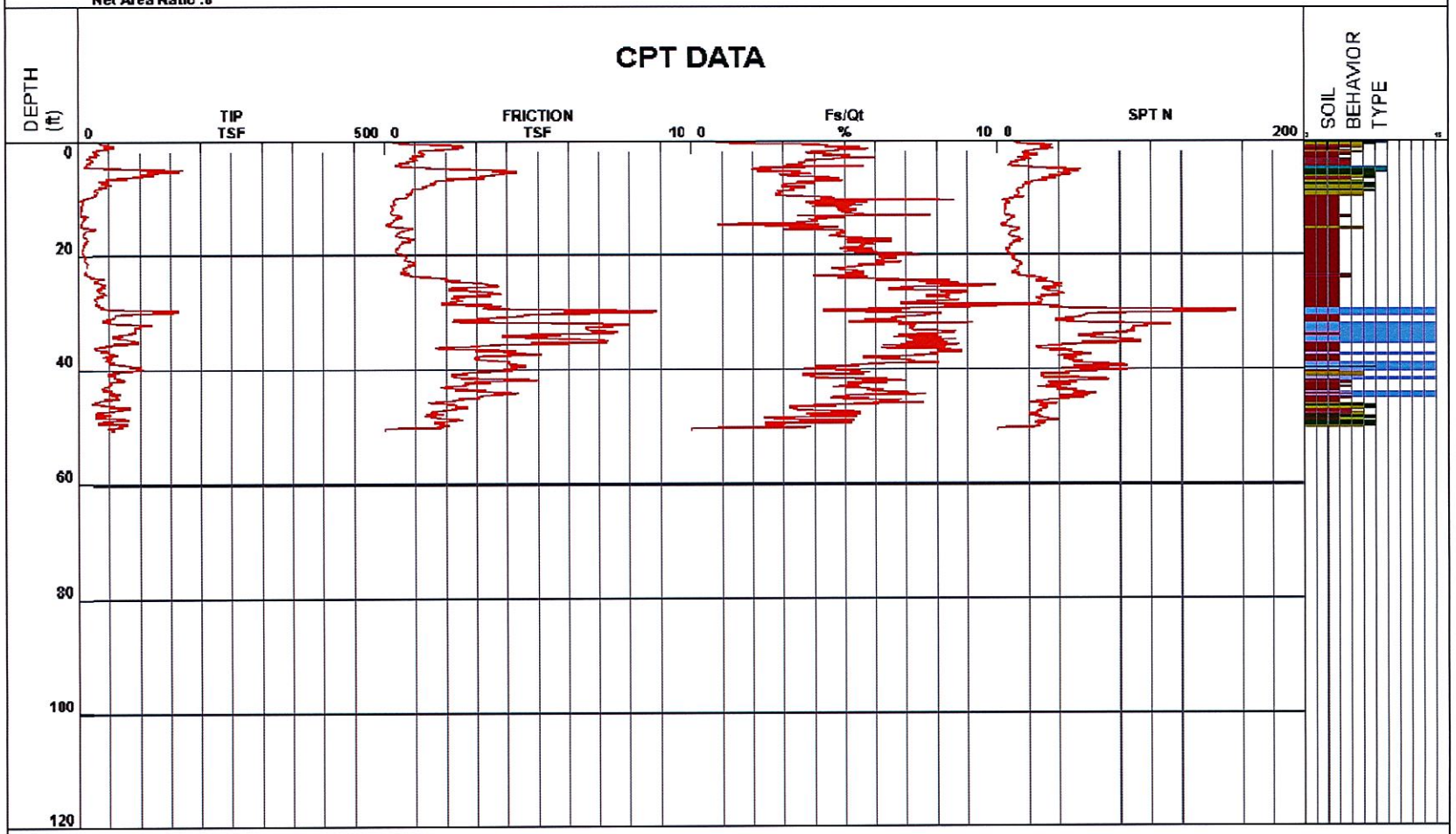
CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-16**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-16.dwg | Layout Tab: 8x11

Net Area Ratio .8



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 10cm squared

*Soil behavior type and SPT based on data from UBC-1983

CONE PENETRATION TEST

Targa Terminal
Stockton, California

TRC | 185908 | **CPT-17**

FILE NAME: N:\CAD\Targa Terminal_Stockton\CPT-17.dwg | Layout Tab: 8x11

APPENDIX B

LABORATORY PROGRAM

The laboratory testing program was directed toward a quantitative and qualitative evaluation of the physical and mechanical properties of the soils underlying the site and to aid in verifying soil classification.

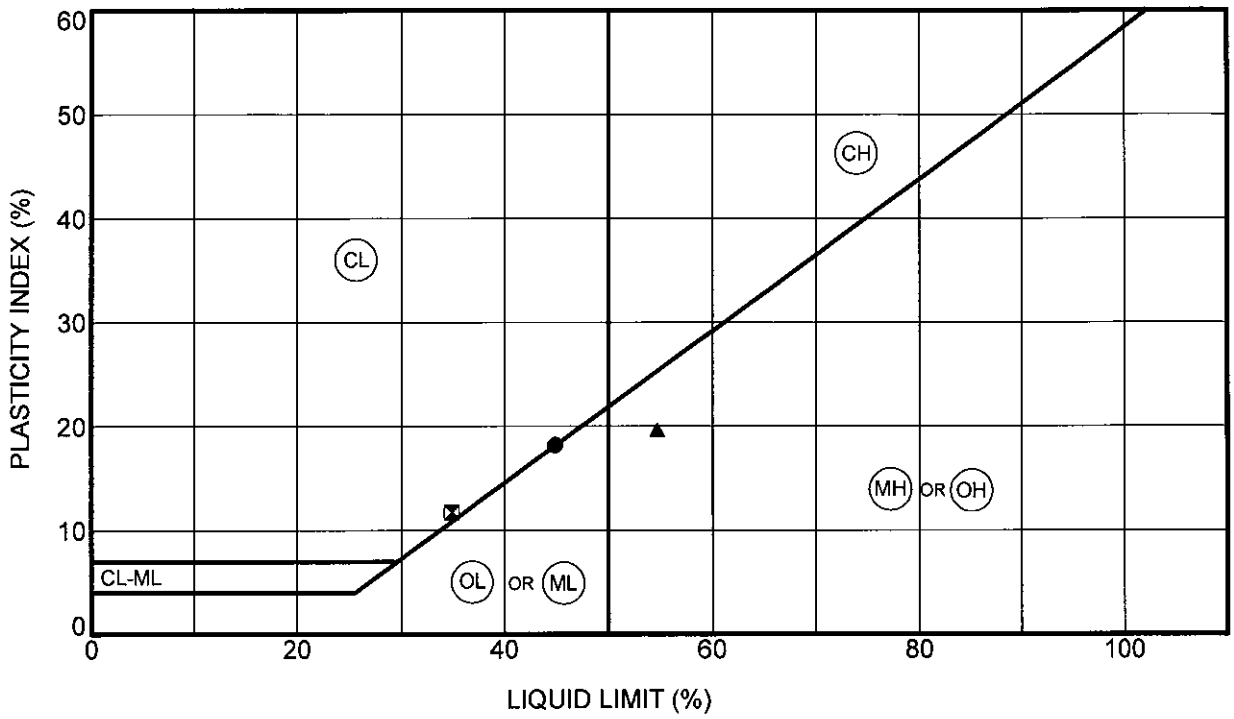
Moisture Content: The natural water content was measured (ASTM D2216) on 37 samples of the materials recovered from the borings. These water contents are recorded on the boring logs at the appropriate sample depths.

Dry Densities: In place dry density tests (ASTM D2937) were performed on 30 samples to measure the unit weight of the subsurface soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

Plasticity Index: Plasticity Index determinations (ASTM D4318) were performed on three samples of the subsurface soils to measure the range of water contents over which this material exhibits plasticity. The Plasticity Index was used to classify the soil in accordance with the Unified Soil Classification System and to evaluate the soil expansion potential. Results of these tests are presented on the Plasticity Chart of this appendix and on the log of the boring at the appropriate sample depth.

Washed Sieve Analyses: The percent soil fraction passing the No. 200 sieve (ASTM D1140) was performed on five samples of the subsurface soils to aid in the classification of these soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

* * * * * * * * * * * *



Symbol	Boring No.	Depth (ft.)	Natural Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing No. 200 Sieve	Unified Soil Classification Description
●	**EB-1**	**1.8**		**45**	**27**	**18**		**SILTY CLAY (CL-ML) [FILL]**
⊠	**EB-2**	**1.3**		**35**	**23**	**12**		**SANDY LEAN CLAY (CL) [FILL]**
▲	**EB-3**	**3.8**		**55**	**35**	**20**		**SILT (MH) [FILL]**

TRC

PLASTICITY CHART AND DATA

Project: TARGA TERMINAL

Location: STOCKTON, CA

Project No.: 185908

FIGURE B-1

LA_CORP.GDT 9/2/11 MV* JPT

APPENDIX C

FIELD EXPLORATION ELEVATIONS AND LATITUDE/LONGITUDE MEASUREMENTS

EB/CPT (#)	Elevation (NAVD88)	Latitude	Longitude
EB-1	18.2	37.94141683	-121.3360557
EB-2	16.5	37.94336518	-121.3385203
EB-3	19.3	37.94247978	-121.3412406
CPT-1	18.5	37.94077785	-121.3366368
CPT-2	17.0	37.94095623	-121.3361208
CPT-3	19.0	37.94113213	-121.3366811
CPT-4	19.0	37.94142695	-121.3367138
CPT-5	19.0	37.94177181	-121.3367084
CPT-6	19.4	37.94175875	-121.3361635
CPT-7	18.5	37.94208632	-121.3366963
CPT-8	18.5	37.94211461	-121.3362663
CPT-9	10.4	37.94251575	-121.3359211
CPT-10	17.7	37.94283575	-121.3373571
CPT-11	17.6	37.94276317	-121.3382216
CPT-12	16.4	37.94310831	-121.3379338
CPT-13	17.0	37.94297508	-121.3385167
CPT-14	17.0	37.94323099	-121.3388713
CPT-15	16.6	37.94343583	-121.3394349
CPT-16	17.0	37.9435696	-121.3391135
CPT-17	17.5	37.94279221	-121.3399637

Appendix J – Engineering Feasibility Report

Engineering Feasibility Report

Targa Stockton Terminal
Port of Stockton

December 2011

Prepared by:

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Prepared for:

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Houston, TX 77002

185908.0003.0000

Table of Contents

1.0 INTRODUCTION 1.1

2.0 SITE PREPARATION AND GRADING 2.1
2.1 SITE PREPARATION 2.1
2.2 SITE GRADING 2.1
2.2.1 Rough Grading 2.1
2.2.2 Final Grading and Surfacing 2.1

3.0 PRODUCT PIPELINES 3.1
3.1 INFLOW PIPELINE AND CONNECTION (KMEP) 3.1
3.2 DOCK PIPELINE (SHIP LOADING/UNLOADING) 3.1

4.0 STORM WATER 4.1
4.1 FLOOD ZONE INFORMATION 4.1
4.2 EXISTING DRAINAGE CONDITIONS 4.1
4.3 PROPOSED DRAINAGE CONDITIONS 4.1
4.3.1 Existing Channel Capacity 4.2
4.3.2 Detention Basin 4.2

5.0 WATER AND SEWER 5.1
5.1 EXISTING WATER SERVICE 5.1
5.2 PROPOSED WATER SERVICE 5.1
5.2.1 Domestic Use 5.1
5.2.2 Fire Control Use 5.2
5.3 SEWER SERVICE 5.2
5.3.1 Proposed Sanitary Sewer 5.2

6.0 ELECTRICITY AND NATURAL GAS 6.1
6.1 ELECTRICAL SERVICE 6.1
6.2 NATURAL GAS SERVICE 6.2

7.0 REFERENCES 7.1

TABLES

Table 4-1: Drainage Summary (Existing Conditions) 4.1
Table 4-2: Drainage Summary (Proposed Conditions) 4.2
Table 5-1: Water and Sewer Demand Summary 5.2
Table 6-1: Electrical Load Summary 6.1

FIGURES

Figure 1-1: Regional Location Map
Figure 2-1: Conceptual Layout
Figure 2-2: Existing Site Topography and Grading Plan
Figure 3-1: Pipeline Route and Connection Map
Figure 4-1: Proposed Utilities – Storm Water
Figure 5-1: Proposed Utilities – Water and Sewer
Figure 6-1: Proposed Utilities – Electrical and Natural Gas

ATTACHMENTS

Attachment A: SFPP, L.P. Connection Policy document
Attachment B: FEMA FIRMette
Attachment C: ALTA Survey

1.0 Introduction

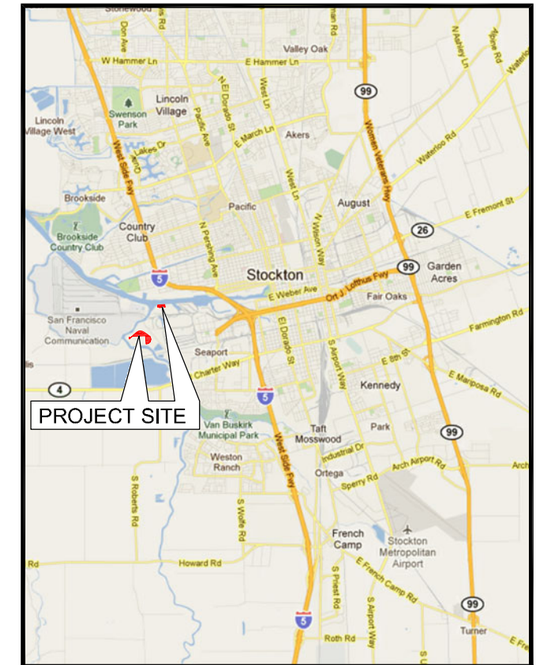
Targa Terminals, LLC (Targa) is considering the construction of a terminalling and storage facility (Project) at an identified 19-acre project site within the Port of Stockton, wholly located within the rail circle adjacent to the existing Pacific Ethanol Plant located at 3028 Navy Drive, Stockton, California, as shown on Figure 1-1: Regional Location Map. The proposed facility would connect to an existing pipeline operated by SFPP, L.P. [subsidiary of Kinder Morgan Energy Partners, L.P. (KMEP)] for product delivery from the Port deep water facilities. In addition, the proposed facility will have the following Inbound/Outbound Delivery Modes: rail (with unit train capability, daily switching, 12 railcar spots, and services provided by both Union Pacific and Burlington Northern Santa Fe Railroads), truck, barge and ship/tankers (connected by pipeline to the Port's deep water dock facilities).

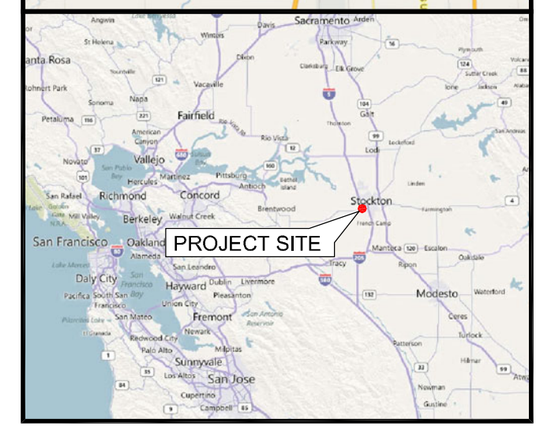
This report focuses on public works and utility engineering issues related to the feasibility of developing the proposed facilities on the Site and necessary pipeline improvements to connect the proposed facility with the common carrier KMEP pipeline and Port of Stockton deep water dock facilities. This study has been prepared to describe necessary engineered design features to demonstrate feasibility of the Project. The report also includes preliminary site layout and utility plans.

The report is organized into major technical sections as follows:

- Section 2.0 describes proposed Site preparation and grading.
- Section 3.0 describes proposed product pipelines.
- Section 4.0 describes proposed stormwater facilities.
- Section 5.0 describes proposed water and sewer facilities.
- Section 6.0 describes proposed electrical and natural gas facilities.
- Section 7.0 describes other proposed utilities.
- Section 8.0 provides references for developing this report.

This report is based on preliminary Project design as proposed for environmental studies, and may not be representative of the actual final engineered design.





LEGEND:

TARGA TERMINAL

TARGA MARINE TERMINAL

REV.	DESCRIPTION	BY	APP.	CHKD

TRC

REGIONAL LOCATION MAP

FIGURE 1-1

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

2.0 SITE PREPARATION AND GRADING

2.1 SITE PREPARATION

All vegetation would be stripped from the site. Stripped vegetation and organic topsoil may be re-used on-Site as a part of storm water management (see Section 4.0) or transported off-Site to a green-waste recycling/composting facility.

2.2 SITE GRADING

2.2.1 Rough Grading

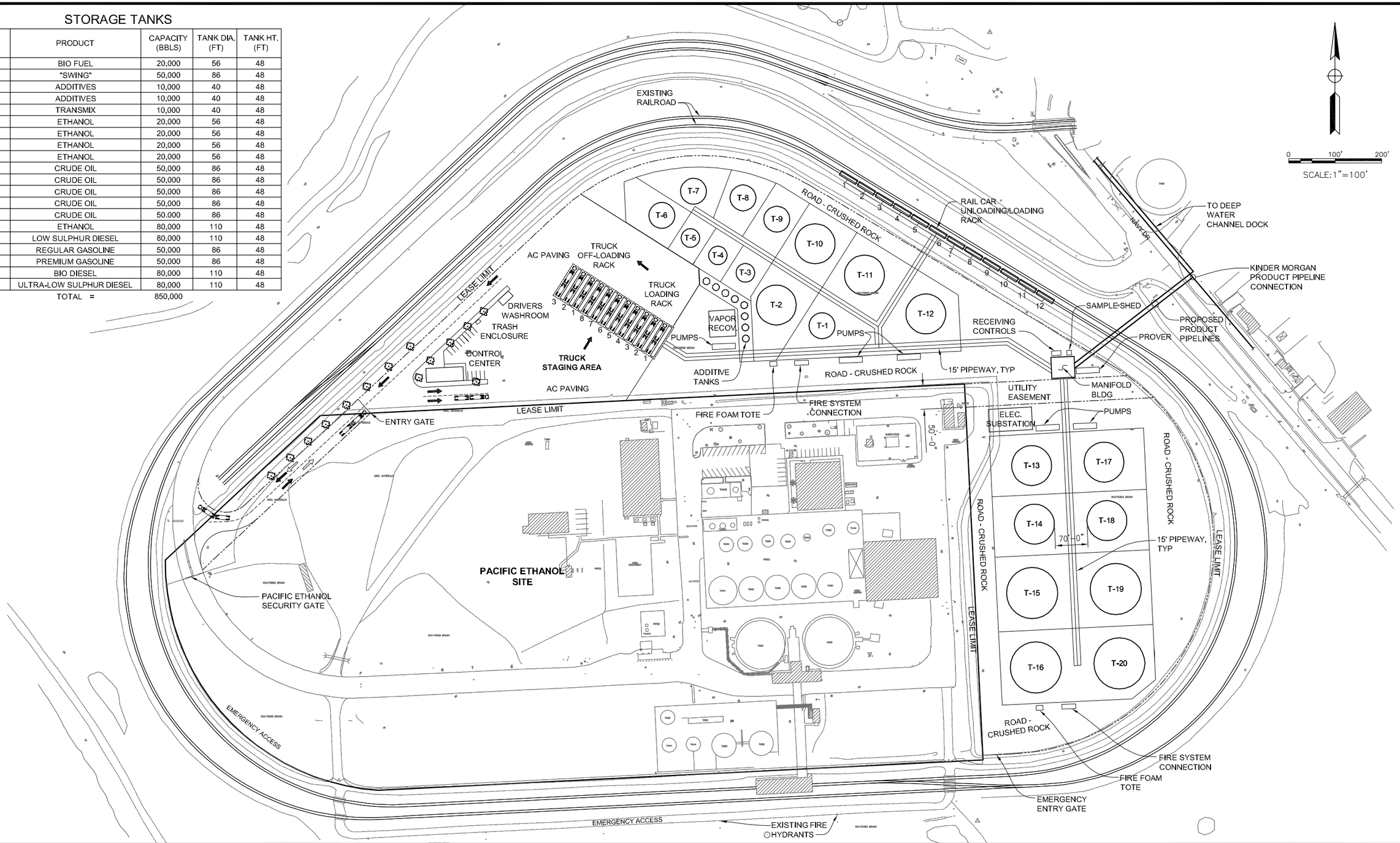
As shown on Figure 2-1: Conceptual Layout, the existing site topography is uneven but relatively flat, generally sloping at a grade of approximately 1% from west to east. The rough grading plan for the Site is presented on Figure 2-2: Existing Site Topography and Grading Plan. The grading plan includes the balance of cuts and fills to ensure that no imported general or structural fill soil will be needed to complete grading at the Site. It is preliminarily estimated that approximately 5,000 cubic yards (cy) of existing soil material will be graded and compacted. Cuts and fills will average approximately 0.5 feet in depth, with a maximum depth of approximately 2.0 feet. All fills will be compacted; it is likely that cut areas will be scarified, moisture-conditioned, re-compacted.

2.2.2 Final Grading and Surfacing

Final grading will include asphalt pavement and concrete slabs, with aggregate base (rock) subgrade. Other soil materials that would be imported include crushed rock for roads and drainrock. Approximately 15,000 cy of rock would be imported for final grading.

STORAGE TANKS

TANK NO.	PRODUCT	CAPACITY (BBLS)	TANK DIA. (FT)	TANK HT. (FT)
T-1	BIO FUEL	20,000	56	48
T-2	"SWING"	50,000	86	48
T-3	ADDITIVES	10,000	40	48
T-4	ADDITIVES	10,000	40	48
T-5	TRANSMIX	10,000	40	48
T-6	ETHANOL	20,000	56	48
T-7	ETHANOL	20,000	56	48
T-8	ETHANOL	20,000	56	48
T-9	ETHANOL	20,000	56	48
T-10	CRUDE OIL	50,000	86	48
T-11	CRUDE OIL	50,000	86	48
T-12	CRUDE OIL	50,000	86	48
T-13	CRUDE OIL	50,000	86	48
T-14	CRUDE OIL	50,000	86	48
T-15	ETHANOL	80,000	110	48
T-16	LOW SULPHUR DIESEL	80,000	110	48
T-17	REGULAR GASOLINE	50,000	86	48
T-18	PREMIUM GASOLINE	50,000	86	48
T-19	BIO DIESEL	80,000	110	48
T-20	ULTRA-LOW SULPHUR DIESEL	80,000	110	48
	TOTAL =	850,000		



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

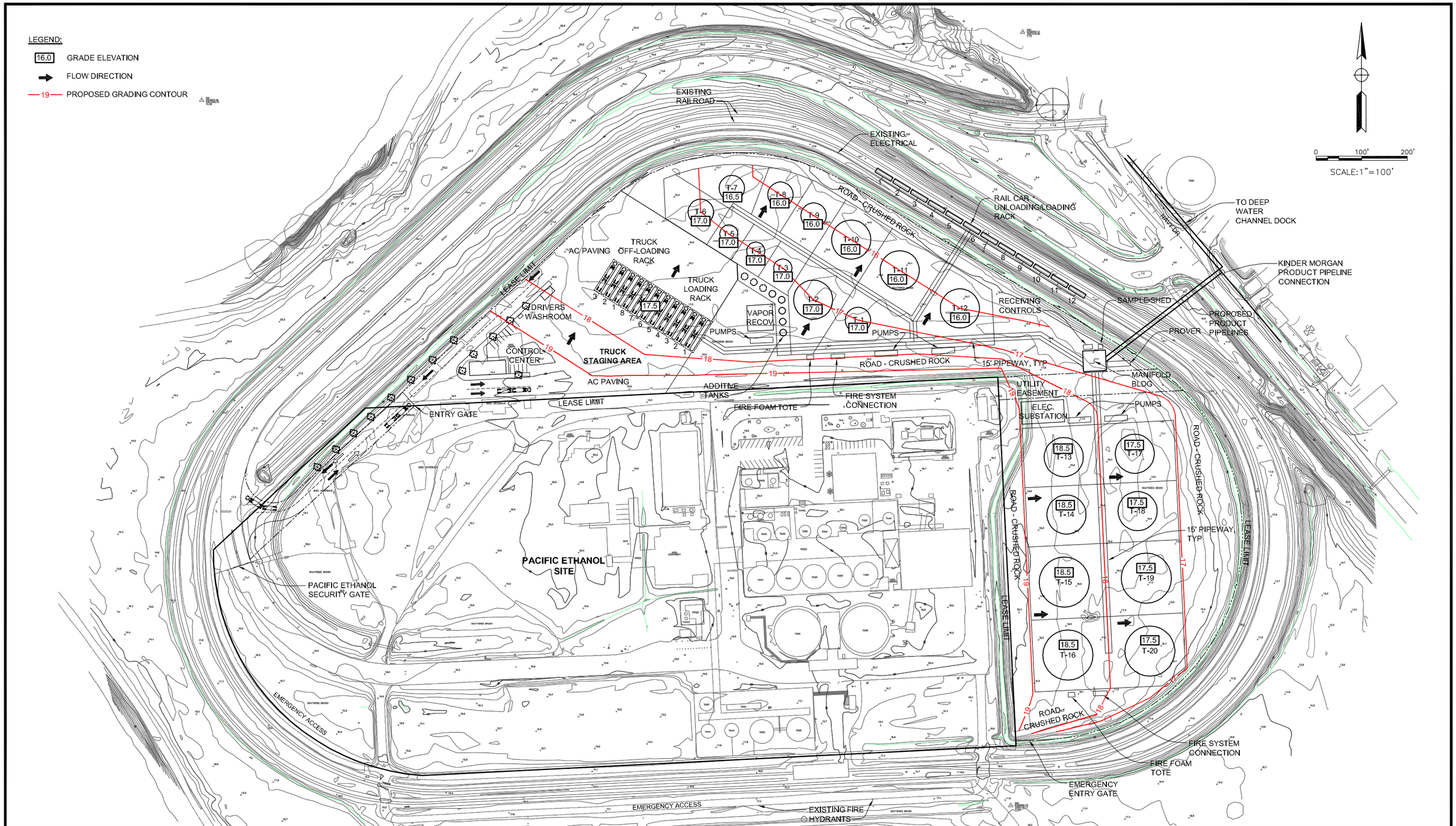
CONCEPTUAL LAYOUT

FIGURE 2-1

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

EXISTING SITE TOPOGRAPHY AND GRADING PLAN

FIGURE 2-2

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

3.0 PRODUCT PIPELINES

3.1 INFLOW PIPELINE AND CONNECTION (KMEP)

Targa estimates that the proposed Project would receive a majority of its petroleum products from the existing KMEP 8-inch line that presently serves all existing terminals at the Port of Stockton. The balance of the petroleum receipts would originate from rail and truck shipments. The new branch pipeline extension from the KMEP local distribution manifold to the proposed Project Site would be operated by Targa and utilized for multiple petroleum products. Product interface would be determined by monitoring the incoming line for changes in specific gravity.

As indicated on Figure 3-1: Pipeline Route and Connection Map, the incoming line would be connected at the KMEP distribution manifold located at the Tesoro Terminal, along Navy Drive. A manifold would then distribute product to storage tanks through separate on-Site pipelines.

The branch line would accommodate a maximum flow rate of 4,000 bph (barrels per hour); such a flow rate would require piping that is 10 inches in diameter. The majority of the proposed pipeline that would connect to KMEP alignment will be situated on the proposed project site (the proposed design would require only a few hundred feet of off-site piping to cross Navy Drive and connect at the distribution manifold). The proposed terminal branch pipeline would be installed underground by trenching and jacking under the rail tracks. The connection to the KMEP distribution pipeline would be in accordance with the *SFPP, L.P. Connection Policy* document (January 19, 2004), included as Attachment A.

Although custody transfer will occur at the KMEP distribution manifold, a turbine meter will be installed to measure the product receipt at the proposed terminal. The turbine meter will be calibrated using a portable prover (equipment used to gauge accuracy of meters) to ensure accuracy of the meter and to verify the volume of product being received.

3.2 DOCK PIPELINE (SHIP LOADING/UNLOADING)

To receive petroleum products from the Port of Stockton dock facilities by barge or tanker ship, a new 16-inch diameter pipeline (approximately 1-mile long) would be constructed to connect the Site to the dock facilities, as shown on Figure 3-1. The pipeline would accommodate a maximum flow rate of 10,000 bph and would consist of American Petroleum Institute (API) 5L X52, WT 0.250” ERW pipe (API piping X52 specification relates to seamless and welded steel line piping that has been deemed adequate for several uses, including conveying gas and oil and has a yield strength of 52,000 psi). This pipeline would follow existing public easements through the Port. The pipeline would require a ten-foot permanent easement within City of Stockton streets, a temporary construction easement up to 50 feet in width, and a minimum of 5 feet of cover above the top of the pipe, and would be required to be located at least 80 feet from the nearest water body.

REV.	DESCRIPTION	BY	APP.	CHKD

TRC

PIPELINE ROUTE AND CONNECTION MAP

FIGURE 3-1

TARGA

FACILITY:

TARGA TERMINAL
STOCKTON, CALIFORNIA

4.0 STORM WATER

The Port of Stockton has developed a Stormwater Development Standards Plan (DSP). The project is located within the DSP's East Complex. All stormwater within this complex drains to a stormwater retention basin. During years when the retention basin reaches a high level, stormwater is pumped to the San Joaquin River. The Port of Stockton DSP specifies a number of Best Management Practices (BMP) requirements that are specific to each drainage zone and are applicable to this project.

4.1 FLOOD ZONE INFORMATION

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Community Panel Number 06077C0455F, effective October 16, 2009, the site is not located within a Special Flood Hazard Area. See included FIRMette in Attachment B.

4.2 EXISTING DRAINAGE CONDITIONS

The site is bordered by a tributary of the San Joaquin River to the north, west and south and thus does not require accounting for offsite runoff. Areas of the proposed project not bordered by the river have drainage patterns directing flow east, away from the site.

The Site drains to an earthen channel around the north and east perimeter that discharges to an existing 36" concrete pipe culvert that handles all the flow from the watershed. The culvert discharges to a ditch along Navy Drive and culminates at the East Complex retention basin.

Existing flow conditions are indicated on Table 4-1:

Table 4-1 – Drainage Summary (Existing Conditions)[1]

DRAINAGE AREA	DESIGN POINT	STORM (Year)	Tc (min)	C	I (in/hr)	A (Ac)	Q (cfs)
1	1	10	25	0.75	1.20	27	24.30

4.3 PROPOSED DRAINAGE CONDITIONS

The proposed stormwater collection system is shown on Figure 4-1: Proposed Utilities – Storm Water. For the proposed Site drainage conditions, including grading and impervious surfacing described in

[1] Storm water runoff volumes (as discussed in Tables 4-1 and 4-2) were determined for the 10 year 48 hour rainfall event using the Rational Method (Q=C*I*A) in accordance with City of Stockton Department of Public Works Section 77.

Section 3, stormwater flows would discharge to the perimeter earthen channel at several location but will eventually culminate at the existing 36" culvert as in the existing condition.

4.3.1 Existing Channel Capacity

Proposed flow conditions are indicated on Table 4-2:

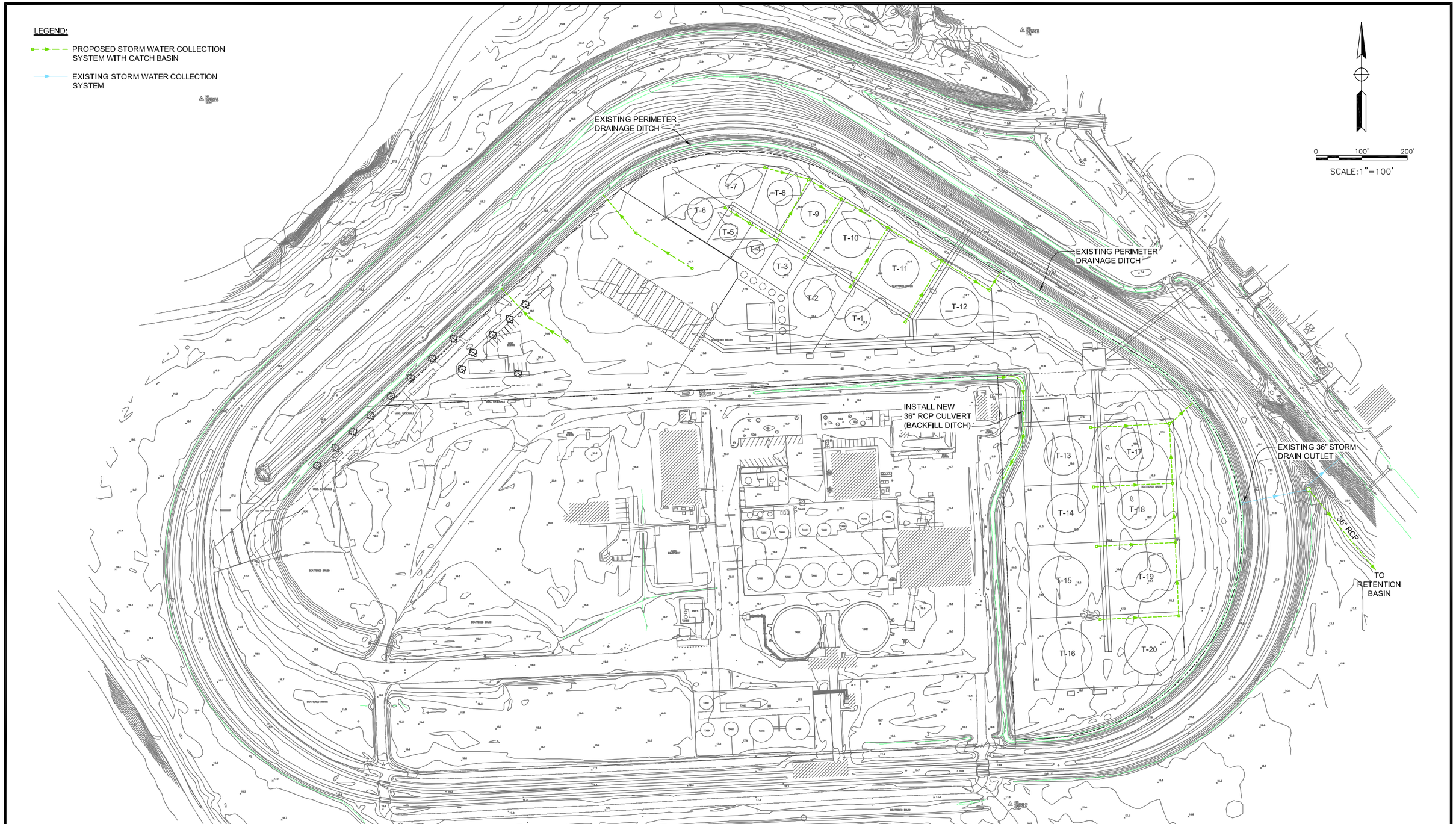
Table 4-2 – Drainage Summary (Proposed Conditions)

DRAINAGE AREA	DESIGN POINT	STORM (Year)	Tc (min)	C	I (in/hr)	A (Ac)	Q (cfs)
1	1	10	18	0.90	1.30	27	31.59

The capacity of the existing earthen channel was obtained by utilizing the Manning equation for open channel flow. Given that the existing channel has a minimum depth of 3' and a bottom width of 8', the capacity at minimum slope (0.5%) is 200 cfs. This is well in excess of the required 31.59 cfs.

4.3.2 Detention Basin

According to the Storm Water Development Standards Plan, detention needs are met by the regional retention basin located southeast of the proposed site. As shown on Figure 4-1, the existing 36" culvert will be extended with 36" RCP, approximately 750 feet from the existing outlet and connected directly to the retention basin to improve drainage conditions along Navy Drive. The retention basin does not discharge water until a high level is reached. Infrequently, when the high level is reached, the Port pumps retention basin water to the adjacent San Joaquin River.



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

PROPOSED UTILITIES STORM WATER

FIGURE 4-1

TARGA

FACILITY:

TARGA TERMINAL STOCKTON, CALIFORNIA

5.0 WATER AND SEWER

5.1 EXISTING WATER SERVICE

The water purveyor for the proposed Site location is the California Water Service Company (Cal Water). There are two water mains in Navy Drive to the east of the Site. These mains are 6" and 18" in diameter and are composed of asbestos cement (AC) pipe. The existing Pacific Ethanol Site also has existing water and fire lines running to their property that tap into the existing 18" main running along Navy Drive. The Pacific Ethanol fire line is 12" in diameter and the domestic water line is 8" in diameter.

5.2 PROPOSED WATER SERVICE

5.2.1 Domestic Use

Proposed water lines are shown on Figure 5-1: Proposed Utilities – Water and Sewer. The proposed domestic line will provide service to the sample shed, control center and emergency showers and fire sprinkler system. The proposed line will be 8" PVC (C-900) and will run along the common property line with the Pacific Ethanol Site for approximately 600' before heading north on the west side of the control center. From that point the line will run to northeast, parallel to the planter strip. The line will continue until it reaches the containment area, at which point it will follow the containment perimeter before looping back to the connection point, for a total length of approximately 2000'. A water meter will be required at the point of connection. The size and details of this meter will be provided by Cal Water, following the submission of a proposed layout. Additionally, the system will require several gate valves and a permanent blow off apparatus for flushing and isolating the mains.

The proposed domestic main will connect to the existing 8" main, entering the property from the east. The main can be accessed within the existing easement. This main will meet all proposed domestic service needs for the development (according to predicted flows and minimum design criteria to City of Stockton Department of Public Works Drawings No. 101 & 101A). Domestic water supply needs are summarized in Table 5-1.

5.2.2 Construction Water Use

Construction activities would result in a total water demand of 4,675 thousand gallons (KGal), for the proposed project. Based on historical water usage at similar facilities operational water consumption factors of 150 gallons per day per 1,000 square feet of office uses space and 80 gallons per day per 1,000 square feet of industrial uses space (Office and industrial square footages were determined using the total areas of the various buildings described in the Targa Prototype Terminal Facility Development Site Design Report). It is estimated that the proposed project operational total office and industrial use water demands will be approximately 422 gallons per day as demonstrated by Table 5-1.

5.2.3 Fire Control Use

As shown on Figure 5-1, additional proposed mains comprised of 10”/12” PVC (C-900) line will service the fire hydrants placed throughout the site and along the existing entrance road from Navy Drive. These mains will serve the proposed facilities and tank farms as well as provide fire coverage for the rail track located along the entrance drive. The various fire hydrants have been spaced at distances of no greater than 300’, as required by City of Stockton Department of Public Works Drawing 101A.

The proposed fire water mains will connect to the existing 12” main entering the property from the east, accessed within the existing easement, and the 18” main in Navy Drive. These mains will meet all proposed fire water service needs for the development according to predicted flows and minimum design criteria according to City of Stockton Department of Public Works Drawings No. 101 & 101A. Fire water supply needs are summarized in Table 5-1.

5.3 SEWER SERVICE

The sewer purveyor for the proposed location is Stockton Municipal Utilities District (MUD). There are two sewer mains in Navy Drive to the east of the Site which are 15” and 42” in diameter. The existing Pacific Ethanol Site also has an existing sewer line running to their property within the utilities easement. The existing main serving Pacific Ethanol ties into the 42” trunk main located in Navy Drive.

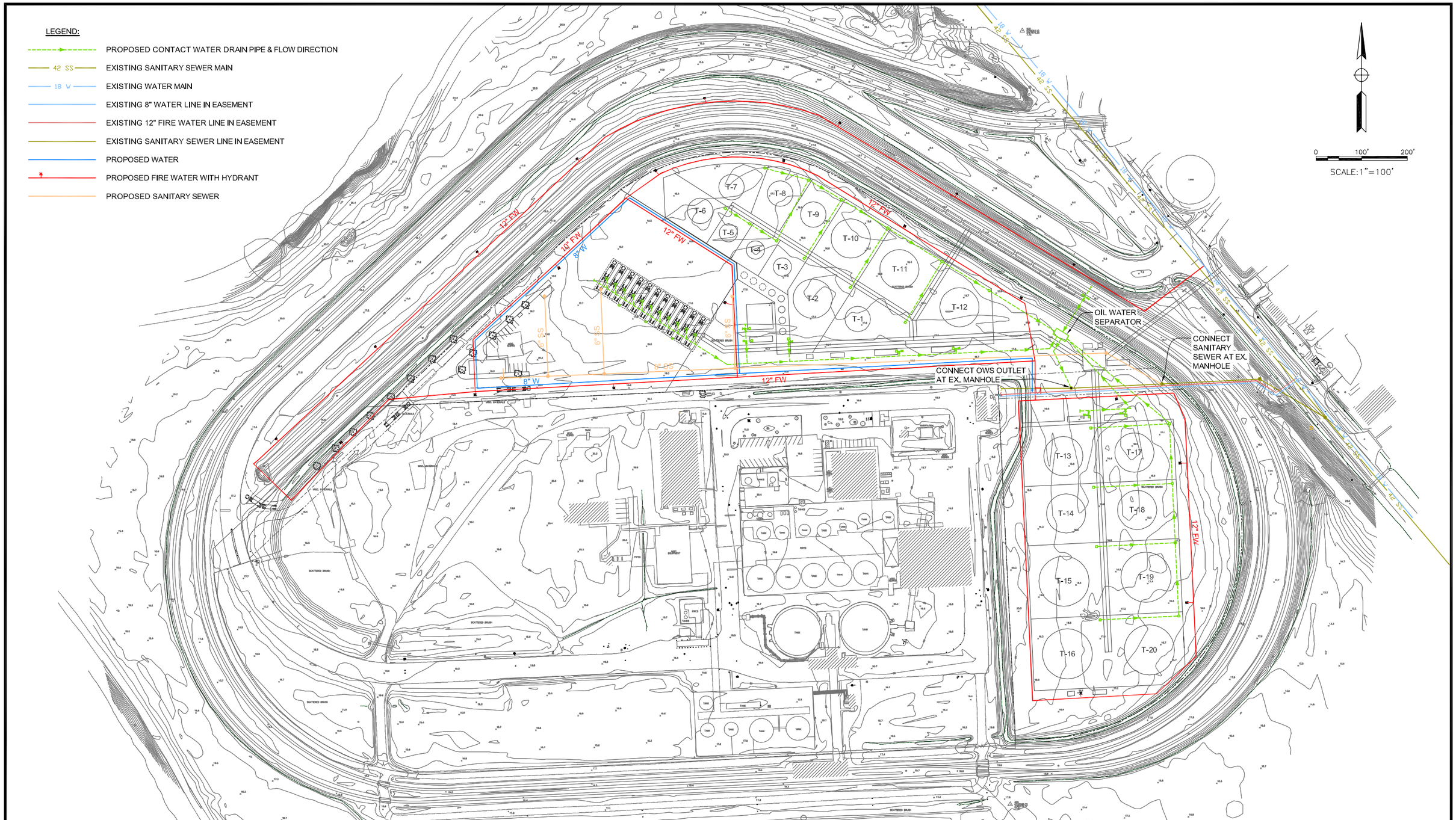
5.3.1 Proposed Sanitary Sewer

Proposed sewer lines are shown on Figure 5-1: Proposed Utilities – Water and Sewer. The proposed development will require an 8” PVC (C-900) sewer main that will run southeast to an existing manhole due east of the Pacific Ethanol site. The main will also require 3 proposed manholes. Once on-Site, the main will run parallel to the northern boundary of the existing Pacific Ethanol site. Several laterals to service the proposed control center, sample shed and oil water separator will tie into the main at various locations. The proposed laterals will be 6” PVC (C-900) pipe. The laterals will tie into a proposed manhole on the east side of the property. Proposed pipeline grades and capacities have been designed to ensure minimum standards are met per City of Stockton Department of Public Works guidelines and the proposed sewer main will meet all proposed service needs for the development according to predicted flows and minimum design criteria according to City of Stockton Department of Public Works Sanitary Sewer Data Drawings No. 46 & 46A. Domestic sewer needs are summarized in Table 5-1.

Table 5-1 – Water and Sewer Demand Summary

DESCRIPTION	Design Flow (GPD)
Domestic[1]	
Water	422
Sewer	480
Fire[2]	
Water	2,000

Notes: 1. Based on City of Stockton DPW Drawing No. 45-47B, assuming 3,000 SF Control Center
2. Based on City of Stockton DPW Drawing No. 90-90A



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

PROPOSED UTILITIES WATER AND SEWER

FIGURE 5-1

TARGA

FACILITY:

TARGA TERMINAL STOCKTON, CALIFORNIA

6.0 ELECTRICITY AND NATURAL GAS

6.1 ELECTRICAL SERVICE

The on-site PG&E electrical line, currently serving the adjacent Pacific Ethanol plant's substation, is rated at 60 kV (KiloVolt). Electrical power for the proposed project will likely be tapped off this line and brought to a new substation located in the eastern portion of the property as indicated on Figure 6-1: Proposed Utilities – Electrical and Natural Gas. Based on the equipment list provided in Table 7-1 below, the total estimated connected load for the system is 3.5 MW (MegaWatt), of which approximately 1 MW will be from small motor loads, 1 MW will be from large motor loads, 1 MW will serve other facility power requirements, and 0.5 MW will be reserved for future capacity, if needed.

The electrical system will consist of one 5 MVA (MegaVolt Ampere) transformer (60 kV to 4160V), one five-bay 1200A 4160V medium-voltage switchgear with integral starters for two 1500 HP (Horse Power) pumps, one 2.5 MVA transformer (4160V to 480V), and two 480V motor control centers (one 3000A and one 1000A). There will be other small transformers and distribution panels located to supply 120/208 volt power as required.

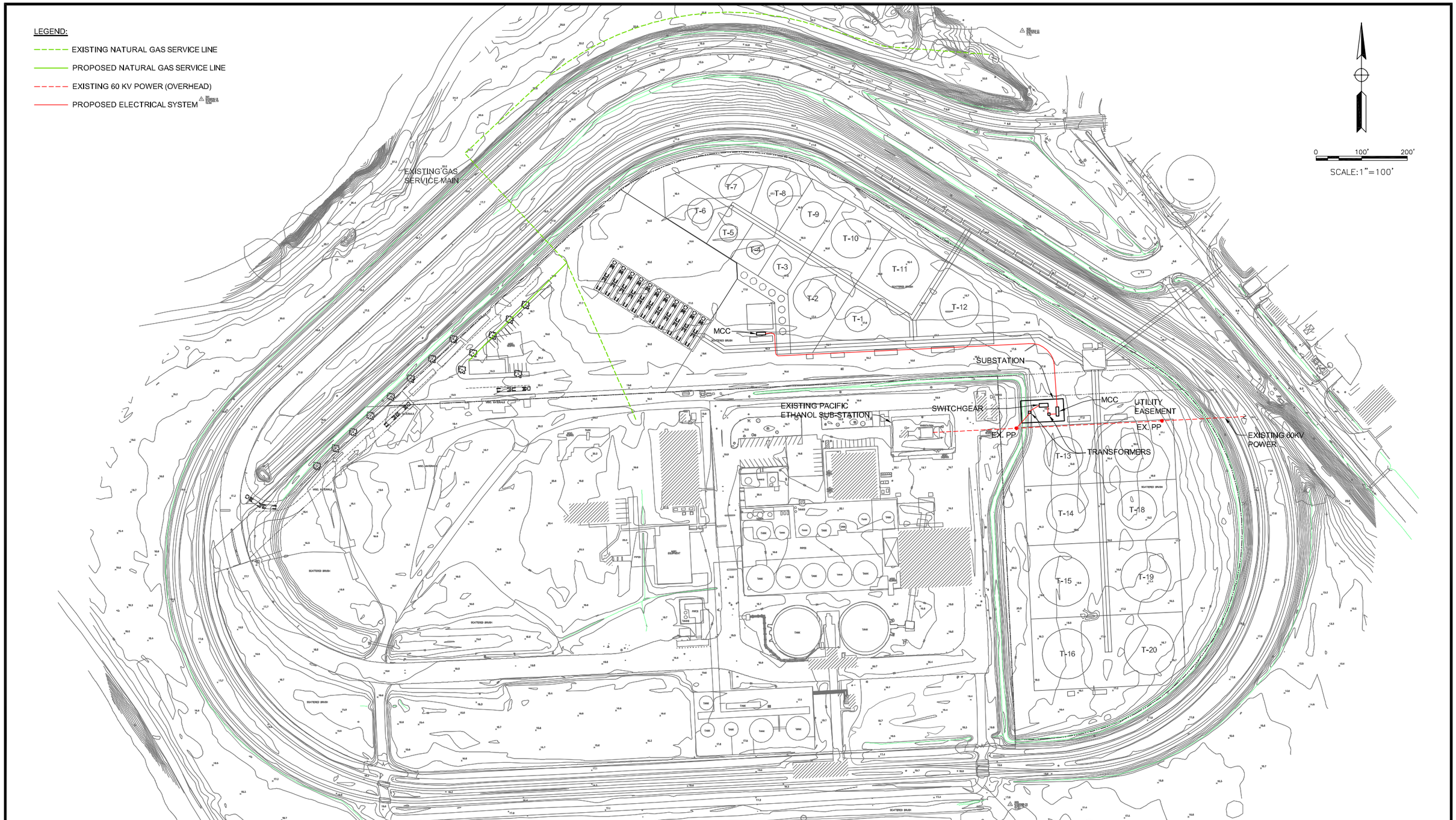
Table 6-1 – Electrical Load Summary

DESCRIPTION	# of Motors	HP	Total HP	Load (Watts)[1]
Small Motors[1]				
Regular Gas	4	75	300	223,800
Premium Gas	3	75	225	167,850
Bio Diesel	2	75	150	111,900
ULS Diesel	2	75	150	111,900
LS Diesel	2	75	150	111,900
Ethanol	2	20	40	29,840
Transmix	2	50	100	74,600
Bio Fuel	2	50	100	74,600
Rail Car Off-loading	12	7.5	90	67,140
Product Return	1	7.5	7.5	5,595
Drain Sump	1	10	10	7,460
Additive off-load	1	7.5	7.5	5,595
Gasoline Additive	8	2	16	11,936
Lubricity Additive	2	2	4	2,984
Red Dye Additive	2	2	4	2,984
Antistatic Additive	2	2	4	2,984
Large Motors				
Barge/Ship Loading[2]	2	1500.0	3,000	1,119,000
Total Pump Motors	50		4,358	2,132,068
Facility Power[3]				1,013,068
Future/Spare Capacity (50%)				506,534
Total Power (Approximate)				**3,651,170**

Notes: 1. 746 watts per 1 HP @ unity power factor, assumes all pumps running.
2. Assumes only one 1500 HP motor running at any given time.
3. Facility Power @ 100% of small motor load.

6.2 NATURAL GAS SERVICE

As indicated on Figure 6-1, an existing natural gas line serves the Site, entering from the northwest and extending to the adjacent Pacific Ethanol facility.



REV.	DESCRIPTION	BY	APP.	CHKD

TRC

PROPOSED UTILITIES ELECTRICITY & NATURAL GAS

FIGURE 6-1

TARGA

FACILITY:

TARGA TERMINAL STOCKTON, CALIFORNIA

7.0 REFERENCES

City of Stockton Department of Public Works, November 25, 2003, *Standard Specifications and Drawings*.

Federal Emergency Management Agency (FEMA), October 16, 2009, Flood Insurance Rate Map (FIRM) No. 06077CO455F.

Port of Stockton, June 1, 2009, *Storm Water Development Standards Plan*.

SFPP, L.P., January 19, 2004, *Connection Policy*.

Attachment A: SFPP, L.P. Connection Policy Document.

SFPP, L.P.
CONNECTION POLICY

Any Shipper seeking to obtain a connection to the pipelines and other facilities of SFPP, L.P. (the "SFPP System" or "System") under SFPP's currently effective rules and regulations tariff shall comply with the following requirements:

1. **Application.** Any Shipper ("Applicant") requesting approval for a connection from its pipeline or other facilities (the "Connecting Pipeline") to the SFPP System shall make an application to SFPP. The application shall include the following:

(a) Name(s) of Applicant and the owner and the operator of the Connecting Pipeline, listed separately if Applicant is not also the owner and operator of the Connecting Pipeline. If Applicant (or the owner or operator of the Connecting Pipeline) is a legal entity other than an individual, the application shall include documentation establishing the legal status of such entity and the authority and capacity of the officer or manager signing the application.

(b) Sufficient information to determine the creditworthiness and financial strength of Applicant, such sufficiency to be determined in the sole discretion of SFPP.

(c) A resume covering the experience of Applicant with regard to the operation of facilities similar to the Connecting Pipeline.

(d) Technical data with respect to the petroleum products to be injected, for purposes of equipment sizing and cost analysis, including, but not limited to, product type, operating temperatures, average and peak throughput rates, and any operating pressure limitations to be considered in connection with design.

(e) A complete description ("Project Outline") of (i) the Connecting Pipeline, (ii) Applicant's equipment and other facilities necessary or appropriate for measurement and stream analyses, surveillance and/or communication facilities, piping and housing, and any other auxiliary equipment and facilities necessary or appropriate for the connection (the "Connection Facilities"), and (iii) any other facilities to be connected to the System.

(f) Designation of the location where Applicant desires to establish a connection and the proposed location of the equipment to be attached directly to the System to make the connection possible as well as any necessary piping to the Connecting Pipeline, including the first block valve, transmix return piping and any facilities for future pipeline connections (the "Connection Tap").

(g) Maximum and minimum average achievable flow rates and pressures at the Connection Tap.

(h) A summary of Applicant's current safety program including training, safety awareness, and operating rules.

(i) A list of all permits, Environmental Impact Statements, approvals, and other compliance documents required by appropriate State and Federal agencies for the Connection Facilities and Connection Tap, with an indication of the status of Applicant's application for or preparation of such permit approval or other document. To the extent that preliminary approvals or permits have been or can feasibly be obtained prior to processing the connection application, evidence of such approvals or permits shall be submitted along with the application.

(j) A statement by Applicant that it has read the currently effective SFPP, L.P. tariffs pertaining to the proposed movement, including the Rules and Regulations Tariff, and acknowledges that the tariffs, as amended from time to time, will govern the proposed movement and that, in any conflict between the tariffs and any connection agreement entered into by SFPP and the Applicant, the tariffs shall govern.

The Application shall be delivered to the Director of Business Development, Kinder Morgan Energy Partners, 1100 Town & Country Road, Orange, California 92868.

2. **Approval of Petroleum Products.** Petroleum products to be tendered shall meet the requirements of SFPP's Rules and Regulations Tariff.

3. **Review and Approval of Applications.** SFPP shall examine each application for completeness and return any incomplete application to Applicant with instructions on additional requirements. Within 90 days after its receipt of a complete application, SFPP shall notify Applicant of the approval or disapproval of the application.

4. **Requirements for Approval of Application.** SFPP shall not approve applications for connection to the System unless the application includes evidence satisfactory to SFPP in its sole discretion that:

(a) Applicant has sufficient financial resources to comply with Article 8 of this Connection Policy, to pay the costs of building the Connection Facilities and the Connection Tap, and to discharge any liability that could arise in connection with the operation of the Connection Tap, the Connection Facilities, and the portion of the Connecting Pipeline that is in the vicinity of the System, including damage to the Connection Tap, to the Connection Facilities, to System facilities, to System shippers (including loss or damage to petroleum products being transported in the System), to property of other parties (including environmental or other damage to the public domain), and death or injury to any individuals;

(b) Applicant can and will obtain insurance in accordance with Article 14;

(c) Applicant has adequate experience and technical competence to operate the proposed Connecting Pipeline;

(d) the Connection Tap, Connection Facilities, and Connecting Pipeline can be constructed and operated in a manner that does not pose a threat to the safety or security of System facilities, of the petroleum products shipped through the System, or of the property or persons of others in the vicinity of the System, the Connection Tap, the Connection Facilities, or the Connecting Pipeline;

(e) the Connection Tap, Connection Facilities, and Connecting Pipeline do not pose a substantial risk of damage to the environment; and

(f) the Connection Tap, Connection Facilities, and Connecting Pipeline can be constructed and operated in accordance with all applicable laws, rules, and regulations.

5. **Connection Agreement.** If SFPP approves the application, it shall furnish to Applicant a form of agreement incorporating the pertinent terms and conditions set forth herein and other reasonable terms and conditions appropriate under the circumstances of the specific connection being sought ("Connection Agreement"). Applicant shall promptly tender the executed form of Connection Agreement to SFPP. SFPP shall not commence any activities related to implementation of the requested connection until the executed agreement is returned to SFPP.

6. **Engineering and Design Work.**

(a) Design. After submission of its application and in no event later than 12 months after SFPP's approval of the application, Applicant shall, at its expense, provide for SFPP's approval a complete engineering design for the Connection Tap and Connection Facilities. SFPP shall approve or disapprove the design within 180 days after its submission. Applicant shall make its engineering staff available during such 180-day period to meet and confer with SFPP's engineering staff, and shall make such changes to the design as directed by SFPP. If SFPP disapproves the design, SFPP may, at its option, either (i) terminate any Connection Agreement that has been entered into, or (ii) provide Applicant with an opportunity to make such changes to the design that SFPP directs and resubmit the design to SFPP.

(b) Project Outline. Upon approval of the design by SFPP, Applicant will amend the Project Outline consistent with the approved design, and after SFPP's approval of such amendment, the revised Project Outline will be appended as Exhibit C to any Connection Agreement and made a part thereof.

(c) Construction Changes. Applicant shall construct the Connection Tap and Connection Facilities as directed by SFPP. During construction, SFPP shall be entitled to make

any changes in the plans and methods of construction and impose any stipulations that it deems necessary to protect the safety, security, and integrity of the System.

(d) Location of Facilities. SFPP shall endeavor to accommodate to the degree feasible the Applicant's requested location for the Connection Tap; provided that the determination of such location shall be made by SFPP in its reasonable judgment based on the physical and operational circumstances of the System.

(e) Tie-In Point. SFPP will provide, and Applicant shall adhere to, minimum specifications consistent and compatible with the standard specifications for System facilities for designing and constructing Applicant's facilities at the point where the Connecting Pipeline joins the Connection Tap, which SFPP shall operate (the "Tie-in Point"). Neither the Connection Tap nor Connection Facilities will be operated if SFPP determines that facilities at the Tie-In Point or any other portion of Applicant's facilities are not properly constructed and maintained to be compatible with the Connection Tap, the Connection Facilities, and the System's operations.

7. **Construction of Connection Tap and Connection Facilities.**

(a) Contractor. Applicant shall submit the name of the proposed construction contractor for the Connection Tap and the Connection Facilities, for approval by SFPP, along with a copy of the construction contract, detailed plans and specifications, insurance policies in proper form, and other documentation as required. Applicant shall provide documentation that all employees and contractors meet United States Department of Transportation requirements for Operator Qualification and Alcohol/Drug Testing. Applicant shall provide contractor's United States Operational Safety and Health Administration safety records. Work shall not commence until SFPP has reviewed and approved all of such items. As to any work to be performed on SFPP's right-of-way, SFPP may require payment and performance bonds that meet its satisfaction, and the contractor will be required to comply with reasonable rules and regulations issued by SFPP. The Applicant and its contractor shall provide SFPP with access to the job site at any time

for inspection. If SFPP, in its sole discretion, notifies Applicant that (i) the contractor is not complying with such rules and regulations, (ii) a safety hazard exists, or (iii) the results of the work will not be in compliance with the plans and specifications or will not be compatible with the System, Applicant shall promptly cause the contractor to cease its activities to the extent and for as long as necessary to correct the problem.

(b) Compliance with design. SFPP shall not approve the Connection Facilities and Connection Tap for operation until SFPP is satisfied that such facilities are in compliance with the engineering drawings, plans, specifications, and any other technical requirements imposed by SFPP. Within 90 days of completion, Applicant shall provide as-built drawings to SFPP of those facilities SFPP will operate and/or maintain.

(c) Dismantlement, removal, and restoration. Before commencement of construction of the Connection Tap and Connection Facilities, Applicant shall provide financial assurances satisfactory to SFPP that Applicant will be able to pay the estimated costs of dismantling and removing the Connection Tap, the Connection Facilities, such other facilities Applicant owns in the vicinity of the System, and restoring the area affected thereby. Any initial or subsequent construction by Applicant in conjunction with this connection shall be removed and the property restored to its original condition at Applicant's sole expense. Applicant shall be responsible for dismantlement, removal, and restoration costs, if any, that SFPP incurs with respect to the Connection Tap, the Connection Facilities, and any other facilities Applicant owns in the vicinity of the System.

8. **Costs to be Borne by Applicant.**

(a) Connection costs. Applicant shall bear all costs incurred in connection with the application for and design and construction of the Connection Facilities, the Connection Tap, and the Connecting Pipeline, including but not limited to costs of engineering, design, inspection, procurement, maintenance, management, supervision, construction, professional services,

environmental assessment and mitigation, dismantlement, removal, and restoration, governmental regulatory applications and approvals, any capital expenditures for rights-of-way, leases or other land acquisitions required, communication systems and software, together with usual overhead and other customary mark-ups on any of such costs.

(b) Originating connection. If applying for an originating connection, Applicant shall also provide, at its own cost, the following: facilities to the point of connection, pumping capacity to meet pressure and flow rates in the pipeline segment, metering facilities built to SFPP's specifications and to be operated and maintained by SFPP at SFPP's cost, facilities to handle interfaces (including flush lines and transmix tanks), power for both the pumping and the metering facilities, and all SCADA and communications equipment necessary for remote monitoring and control by SFPP.

(c) Delivery connection. If applying for a delivery connection, Applicant shall also provide, at its own cost, the following: facilities from the point of connection that include adequate tankage to hold expected pipeline batch volumes, metering facilities built to SFPP's specifications and to be operated and maintained by SFPP at SFPP's cost, facilities to handle pressure surges (*e.g.*, a relief tank), facilities for handling transmix, and all SCADA and communications equipment necessary for remote monitoring and control of the connection by SFPP. All of the facilities included in this subparagraph (c) must be rated for delivery pressures and full-stream flow rates.

(d) SFPP costs. Applicant shall reimburse SFPP for all costs reasonably incurred by SFPP pursuant to the Connection Agreement, as described below.

(1) Salaries and wages of SFPP's employees and contractors, including inspectors, employed in the conduct of activities pursuant to the Connection Agreement.

(2) A fixed payroll burden allowance of 19.4% of the employees' salaries and wages mentioned in Item 1 above, representing approximate costs to cover employee

benefits, employee insurance plans, unemployment compensation, workers' compensation, medical plans, and other similar indirect payroll costs applicable to the employees whose salaries and wages are chargeable under this section.

(3) Actual travel and business expenses of SFPP's employees and contractors whose salaries and wages are chargeable under this section.

Thirty days after execution of the Connection Agreement, SFPP will provide to Applicant an estimate of SFPP's costs. Applicant shall reimburse SFPP 100% of SFPP's estimated costs pursuant to the following schedule: 50% prior to start of construction and 50% prior to tie-in of the Connection Tap. If at any time after the execution of the Connection Agreement but prior to completion of the connection Applicant terminates the project, Applicant shall reimburse SFPP for the costs incurred to date.

(e) SFPP accounts. SFPP shall maintain accurate accounts of all of its expenses, costs, and liabilities incurred pursuant to this Agreement. Following completion of construction, SFPP shall submit to Applicant a final statement of accounts showing all costs hereunder by appropriate investment categories. Such statement shall be in sufficient detail to enable appropriate charges to the proper account under the FERC Uniform System of Accounts for Oil Pipeline Companies. Applicant shall pay SFPP's final invoice within 30 days of receipt thereof. Following receipt of the final invoice and upon notice in writing to SFPP, Applicant shall have the right for 60 days to audit SFPP's accounts and records relating to SFPP's performance of its obligations pursuant to the Connection Agreement. If Applicant exercises such right to audit, it shall make every reasonable effort to conduct its audit in a manner that will result in a minimum of inconvenience to SFPP. SFPP shall bear no portion of Applicant's audit cost.

9. **Connection Facilities.** The Connection Facilities generally shall include, but not be limited to, (a) measurement and stream analyses (or sampling) facilities, (b) surveillance and/or

communication facilities, including transmitting and receiving facilities and including back-up communication facilities that are compatible with other System facilities that will transmit to SFPP or allow SFPP to obtain information on (i) volume and quality of petroleum products moved through the Connection Facilities, (ii) the current operational status of the Connection Facilities, and (iii) operational control of delivery/receipt valves, and (c) necessary pumping, piping, housing, and any other auxiliary equipment and facilities necessary or appropriate for the connection. To the fullest extent possible, these requirements shall be accomplished using SFPP's SCADA equipment. The Connection Tap shall not be considered a part of the Connection Facilities.

10. **Provisions for SCADA.** Applicant shall provide sufficient space in environmentally controlled buildings at any pumping stations of Applicant that are part of the Connection Facilities and the Tie-In Point, for SFPP's SCADA equipment. Unless otherwise specified, the space required is approximately three feet of clear wall space with six feet clearance in front of the wall. If a separate building is provided, the minimum size is six feet by eight feet. Applicant shall provide conduit runs and wires between SFPP's SCADA equipment and the related components to be monitored and/or controlled. Applicant shall provide labor for landing the wires. Applicant shall provide a primary and backup communication circuit solely dedicated to SCADA communications. Applicant agrees to comply with SFPP SCADA security requirements.

11. **Custody, Responsibility, Ownership, and Liability For Product.** The point of custody transfer for the petroleum products delivered to the System by Applicant shall be the Tie-In Point. Applicant shall be responsible for, and shall indemnify SFPP for, any loss, cost, damage, claim, demand, or liability associated with petroleum products delivered by Applicant to the System that occurs within the Connecting Pipeline or the Connection Facilities or otherwise upstream of the point of custody transfer, regardless of how the same occurs and whether or not the same is caused in whole or in part by the failure of SFPP's equipment, including to the extent arising out of the negligence of SFPP but excluding to the extent arising out of the gross negligence or willful misconduct of SFPP. Responsibility for and

indemnification against any loss or liability arising after the point of custody transfer shall be governed by SFPP's applicable tariff.

Title to all petroleum products received at the Tie-In Point shall remain in the name of the shipper of record. SFPP shall not be responsible for any taxes that may be assessed against such petroleum products. SFPP shall not be liable as an insurer of petroleum products received at the Tie-In Point.

12. **Changes in Methods of Operation.** In the event that changes in the composition of the petroleum products transported in the System or in the methods by which the System is operated require additions to, replacement, dismantling, or modification of or changes in the method of operation of the Connection Facilities, the Connection Tap, the Connecting Pipeline, or any other facilities owned or used by Applicant, Applicant shall, at its own expense, perform such additions, replacements, dismantling, modifications, or changes, and SFPP shall not be liable therefor. The engineering, design, and construction of any proposed modification to the Connection Facilities or the Connection Tap is subject to Articles 6, 7, and 14 hereof. Applicant shall indemnify and hold harmless SFPP from and against any such liability and any and all claims, demands, causes of action, and losses arising out of any assertion of such liability, whether by the Applicant or otherwise.

13. **Indemnification.** Each party shall indemnify, defend, and hold the other party, its parent, and affiliates, harmless from and against any and all liability, claims, demands, damages, or costs whatsoever for injuries to or deaths of persons (including but not limited to employees of the parties hereto), and loss or destruction of and damage to property (including but not limited to property of the parties hereto) arising out of the indemnifying party's construction, operation, and/or maintenance of that party's designated portion of the facilities described herein, except to the extent caused by or contributed to by the negligent acts or omissions of the other party.

14. **Insurance.** With respect to and for the duration of any Connection Agreement executed pursuant to this Connection Policy, Applicant shall carry and maintain in force, with companies licensed in the state where the connection is and satisfactory to SFPP, the insurance listed on Exhibit A. The limits of

liability on the insurance policies listed in Exhibit A shall not release Applicant from full and total financial responsibility for all matters for which it accepts liability hereunder even if such liability is not covered by insurance or exceeds the applicable policy limits.

If permitted under applicable law, and at the sole discretion of SFPP, Applicant may substitute self-insurance for one or more of the insurance coverages required in Exhibit A.

15. **Environmental Liability.** Each party shall indemnify, defend, and hold the other party, its parent, and affiliates harmless from and against any and all liability, claims, demands, damages, costs, fines, or penalties whatsoever (including but not limited to reasonable consultants' and attorneys' fees) for soil, water, air, or other environmental contamination or damage arising in any way or occurring from the construction, maintenance, repair, use, operation, removal, or presence of the Connecting Pipeline, Connection Tap, or Connection Facilities, caused by or contributed to by the acts or omissions of the indemnifying party, except to the extent caused by or contributed to by the acts or omissions of the indemnified party. As used herein, the term "soil, water, air, or other environmental contamination or damage" shall include, but not be limited to, (1) contamination or damage resulting in any way from the presence, treatment, storage, or disposal of hazardous materials on the Connecting Pipeline, Connection Tap, or Connection Facilities, or the release of hazardous materials onto or from the Connecting Pipeline, Connection Tap, or Connection Facilities, or (2) any aggravation of costs of remediation or cleanup that arise from or are related in any way to the presence, treatment, storage, or disposal of hazardous materials on the Connecting Pipeline, Connection Tap, or Connection Facilities, or to the release of hazardous materials onto or from the Connecting Pipeline, Connection Tap, or Connection Facilities. As used herein, the term "hazardous materials" shall include, but not be limited to, (1) materials and substances designated as hazardous or toxic wastes, substances, or materials, or as pollutants or contaminants, under any Federal, State, or local law, regulation, or order, including, but not limited to, the Federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. Section 9601, *et seq*.), and the Federal Resource Conservation and Recovery Act, as amended (42 U.S.C. Section 6901, *et*

seq.); or any similar laws of the state in which the Connecting Pipeline, Connection Tap, and Connection Facilities are located; and (2) oil or petroleum product that has been discharged or deposited on or off the Connecting Pipeline, Connection Tap, or Connection Facilities at locations from which the oil or petroleum product has been or probably will be discharged into waters of the states or waters of the United States. This indemnity includes but is not limited to response costs, remedial costs, and any other fines or costs sought by any Federal, State, or local agency under any laws, regulations, or orders.

In addition to Applicant's procuring and maintaining the insurance coverage under Article 14, SFPP may require, in its sole discretion, one or more of the following assurances of Applicant's ability to satisfy its indemnification and hold harmless obligations with respect to environmental liability, which shall together have a total value of not less than $2,000,000: (i) insurance, (ii) guaranty, (iii) surety bond, and (iv) self-insurance, which SFPP shall evaluate in its sole discretion.

Until such time as the Connection Tap, the Connection Facilities, the Connecting Pipeline, and any other facilities owned by Applicant in the vicinity of the System are dismantled and removed, SFPP may periodically require that Applicant renew its demonstration of its ability to satisfy the indemnification and hold harmless obligations with respect to the environmental liability that Applicant has under this Article 15.

16. **Ownership and Operations Responsibility.**

(a) SFPP Operations Responsibility. SFPP shall be responsible to operate remotely or otherwise certain components of the Connection Tap and Connection Facilities, including but not limited to mainline block valves, mainline pumps, pressure/flow control valves, metering system (which includes prover, gravitometer, temperature measurement, automatic flash tester and SCADA equipment) and sampling facilities. SFPP shall have exclusive use of the measurement facilities during the term of the connection. SFPP personnel shall have full and complete access to the Connection Tap and Connection Facilities at all times, to allow SFPP to perform its operational

responsibilities as set forth in this paragraph. SFPP shall comply with all applicable federal, state and local laws, rules, regulations and ordinances concerning its operations hereunder.

(b) Applicant Operations Responsibility. Applicant shall be responsible to operate remotely or otherwise certain components of the Connection Tap and Connection Facilities as outlined in the Connection Agreement. In carrying out its operational responsibilities hereunder, Applicant shall comply with all applicable federal, state and local laws, rules, regulations and ordinances.

(c) SFPP Maintenance Responsibilities. SFPP shall be responsible for performing maintenance and/or repairs, and control of certain components of the Connection Tap and Connection Facilities, including but not limited to mainline block valves, pressure/flow control valves, metering system (which includes prover, gravitometer, temperature measurement, automatic flash tester and SFPP SCADA equipment), and sampling facilities. Applicant shall reimburse SFPP for all expenditures in excess of $2,500 per item (costs of material and outside contractor's services). Applicant shall provide SFPP personnel full and complete access to the Connection Tap and Connection Facilities at all times.

(d) Applicant Maintenance Responsibilities. Applicant shall be responsible for maintenance of certain components of the Connection Tap and Connection Facilities, including but not limited to maintenance, repair and replacement of all materials associated with the mainline pumps and Connecting Pipeline. In carrying out their maintenance obligations hereunder, Applicant and SFPP shall comply with all applicable federal, state and local laws, rules, regulations and ordinances.

(e) Facilities to be Owned by SFPP. Upon completion of the connection, ownership of all the appurtenances attached directly to the SFPP System shall be vested in SFPP. The facilities to be owned by SFPP will be shown in Exhibit A to the Connection Agreement.

(f) Facilities to be Owned by Applicant. Upon completion of the connection, Applicant shall own the Connection Tap and Connection Facilities, excluding all appurtenances attached directly to the SFPP System. The facilities to be owned by Applicant will be shown in Exhibit A to the Connection Agreement.

17. **Assignment.** Applicant shall not assign any right or authority under this Connection Policy or under the Connection Agreement without the prior written approval of SFPP. It shall be a condition to any such approval that the proposed assignee satisfy all qualifications and comply with all requirements imposed on Applicant herein, including the execution of a Connection Agreement satisfactory to SFPP.

18. **Change of Ownership, Management, or Financial Strength.** SFPP reserves the right to withdraw approval of any application in the event that the ownership, management, or financial status of Applicant changes substantially, unless Applicant presents evidence that the new ownership, management, or financial status satisfies the requirements for approval of an application under this Connection Policy.

19. **Safety.** Applicant shall at all times maintain the Connecting Pipeline in a safe operating condition, and Applicant shall conduct a comprehensive safety program for its employees consistent with the program referred to in Article 1(h). SFPP shall be entitled to inspect portions of the Connecting Pipeline located on or in the vicinity of the System right-of-way to determine whether such portions of the Connecting Pipeline are being operated safely.

20. **Compliance with Laws.** The Connecting Pipeline shall be built, maintained, operated, dismantled, and removed in compliance with all applicable laws and lawful regulations.

21. **Halting Receipts or Deliveries.** SFPP shall be entitled to halt receipts from or deliveries to the Connecting Pipeline at any time, without notice, in the event that (i) any aspect of the Connection Tap, the Connection Facilities, the Connecting Pipeline, or the operation thereof becomes unsafe or becomes a threat to the environment, (ii) the Connection Facilities or Applicant's required communication facilities are not in operation, (iii) the System or any segment or component of the System is not in

operation for any reason, including, without limitation, scheduled or unscheduled maintenance or repairs, (iv) Applicant is delinquent in payment of any sums due SFPP, (v) Applicant is in default under or has failed to satisfy any of the terms and conditions of this Connection Policy including, without limitation, Articles 14 and 15, and (vi) the Connecting Pipeline is not built, maintained, or operated in accordance with all applicable laws and lawful regulations.

22. **Modification of Policy.** SFPP shall be entitled to modify this Connection Policy from time to time as it may deem necessary or convenient for the operation of the System, the Connection Tap, or the Connection Facilities.

23. **No Representation or Certification.** Nothing contained in this Connection Policy and no actions taken by SFPP in administering this Policy shall be deemed (i) to indicate any representation or certification to any party that Applicant or Applicant's operations are safe or technically or environmentally sound or otherwise adequate for any purpose, or (ii) to constitute a guarantee or warranty of the safety or adequacy of the Connection Tap, Connection Facilities, or Connecting Pipeline. SFPP shall not be liable to Applicant or to any third party for any loss, cost, expense, damage, or injury arising out of the construction or operation of the Connection Tap, the Connection Facilities, the Connecting Pipeline, or any other activities of Applicant or its contractors on or in the vicinity of the System.

24. **Independent Contractor Status.** In all its operations hereunder, SFPP shall be, and shall be deemed to be, an independent contractor retaining control of its employees, agents, representatives, and operations, and shall not be authorized in any way to incur liability to third parties on Applicant's behalf. Likewise, in all of its operations hereunder, Applicant shall be, and shall be deemed to be, an independent contractor retaining control of its employees, agents, representatives, and operations, and shall not be authorized in any way to incur liability to third parties on SFPP's behalf.

25. **Transmix Handling.** Shippers of record supplying product to the System from the Connecting Pipeline will be allocated transmix in accordance with SFPP's Rules and Regulations Tariff, Item 80. It is anticipated that additional transmix could be created through operation of the facilities

installed pursuant to this Connection Policy. Operations will require that at the end of each scheduled pumping, Applicant must have a sufficient quantity of the next product scheduled for pumping to flush the metering facility, pumping station, and the Connecting Pipeline to the Tie-In Point. Any slugs created through inaccuracies in the flushing operation or any transmix created due to Applicant's inability to meet SFPP's product flushing requirements will be to the sole account of Applicant.

26. **Scheduling.** Shippers of record utilizing the Connection Facilities shall nominate batches for shipment in the System in accordance with SFPP's normal nominating procedures, as described in Item 100 of SFPP's currently effective rules and regulations tariff. All such movements shall be coordinated through Applicant's personnel or designated representatives. Applicant will be responsible for ensuring on-spec product is available at the mainline valve(s) to the SFPP System. Applicant shall comply with all provisions in the latest edition of SFPP's Pipeline Specifications Manual including product quality certification and pre-delivery requirements.

Exhibit A

APPLICANT INSURANCE REQUIREMENTS

BASIC INSURANCE PROVISIONS

Applicant, with respect to and for the duration of any Connection Agreement executed pursuant to this Connection Policy, shall procure and maintain solely at its own expense the following insurance coverages with financially responsible insurance companies (AM Best rating of A-VII or better) and with policy limits not less than those indicated:

(a) Workers' Compensation and Employers' Liability Insurance, in accordance with all applicable state and federal insurance laws, specifically including the following:

(1) Employer's Liability, including Occupational Disease, subject to a limit of liability of not less than $1,000,000 each occurrence.

(2) Waiver of subrogation, in favor of SFPP.

(b) General Liability Insurance to cover liability for bodily injury and property damage with a combined single limit of not less than $1,000,000 each occurrence. Such insurance shall include the following:

(1) Premises and Operations.

(2) Protective Liability, covering for work sublet.

(3) Completed Operations.

(4) Contractual Liability hereunder.

(5) Coverage for surface damage from blowout and cratering, if applicable.

(6) Coverage for damage arising from explosion, collapse, or underground property damage hazards, if applicable.

(7) Pollution liability.

(8) SFPP shall be named as an additional insured for all risks and losses for which Applicant assumed liability under any Connection Agreement executed pursuant to this Connection Policy or for which Applicant is otherwise legally liable.

(c) Business Automobile Liability Insurance, with a combined single limit of not less than $1,000,000 each occurrence or higher as required by applicable laws or regulations. Such policy shall cover liability for bodily injury and/or property damage arising out of the possession and/or use of all owned, hired, non-owned and borrowed vehicles. Such insurance shall include contractual liability. SFPP shall be named as an additional insured for all risks and losses for which Applicant has assumed liability under any Connection Agreement executed pursuant to this Connection Policy or is otherwise legally liable.

(d) Aircraft Liability Insurance, including non-ownership, for all owned and non-owned aircraft used in the performance of any contract hereunder, to cover liability for bodily injury and property damage with a combined single limit of not less than $1,000,000 each occurrence. SFPP shall be named as an additional insured for all risks and losses for which Applicant is legally liable.

(e) Excess Liability, a limit of liability of $5,000,000 each occurrence to be in excess of the following coverages as listed in Exhibit A:

Section: a-1
b
c
d

(f) Builders All Risk Insurance to cover all construction and installation work being performed by, for, or at the direction of the Applicant and including any and all loss, damage and/or impairment to the existing facilities of SFPP.

The policy limit shall be determined by SFPP in its sole discretion.

SPECIAL PROVISIONS CONCERNING POLICIES PLACED BY APPLICANT

1. The amounts specified in the insurances mentioned above are not limits of liability and shall not be construed in any way as SFPP's acceptance of responsibility for financial liabilities in excess of such amounts.
2. All insurances carried by the Applicant shall be primary and non-concurrent with any other insurance coverage available to SFPP.
3. All the deductibles applicable to the said insurances shall be solely for the account of Applicant.
4. All insurance policies shall be endorsed to provide SFPP with at least thirty (30) days notice prior to cancellation or any material change. If Applicant does not obtain and keep in force any insurance required of it under the above provisions or provide SFPP with certificates or renewal certificates as and when required, SFPP shall have the right to procure and keep in force any such insurances and pay such premium or premiums as may be necessary for that purpose in which event any sums so paid by SFPP in this regard shall immediately become due and payable to SFPP by Applicant, and SFPP shall be entitled to deduct such sums from any monies due or that may become due to Applicant in addition to any other remedies SFPP may have under any Connection Agreement executed pursuant to this Connection Policy or otherwise at law.
5. Applicant shall fully indemnify SFPP against loss or damage arising out of any failure to effect or maintain such insurance coverage specified herein or out of any act or omission which invalidates the said insurances or that causes the whole or part of any payment made thereunder to be refunded.
6. Prior to commencement of pipeline construction and/or operation, Applicant shall furnish SFPP with certificates of insurance in respect of all insurance carried by it during the performance of the said work. Renewal coverage shall be obtained by Applicant as and

when necessary, and renewal certificates of insurance shall be forwarded to SFPP as soon as they are available and in any event prior to the expiration of the policy so renewed.

7. Applicant shall require all of its contractors to provide the foregoing insurance coverages to the extent not provided for and not covered by Applicant's insurance coverages, and any deficiencies in the coverage or policy limits of said contractors shall be the sole responsibility of Applicant.

Attachment B: FEMA FIRMette.

substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

Floodplain boundary

Floodway boundary

Zone D Boundary

CBRS and OPA Boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513 Base Flood Elevation line and value; elevation in feet*

(EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A — A Cross section line

23 - - - - - 23 Transect line

97° 07' 30", 32° 22' 30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

$^{42}76^{000m}$E 1000-meter Universal Transverse Mercator grid values, zone 10

600000 FT 5000-foot grid ticks: California State Plane coordinate system, zone III (FIPSZONE 0403), Lambert Conformal Conic Projection

DX5510 × Bench mark (see explanation in Notes to Users section of this FIRM panel)

● M1.5 River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index.

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP PANEL

NUAL-
BY A
PPING
ION,

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0455F

FIRM

FLOOD INSURANCE RATE MAP

SAN JOAQUIN COUNTY, CALIFORNIA

AND INCORPORATED AREAS

PANEL 455 OF 950

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SAN JOAQUIN COUNTY	060299	0455	F
STOCKTON, CITY OF	060302	0455	F

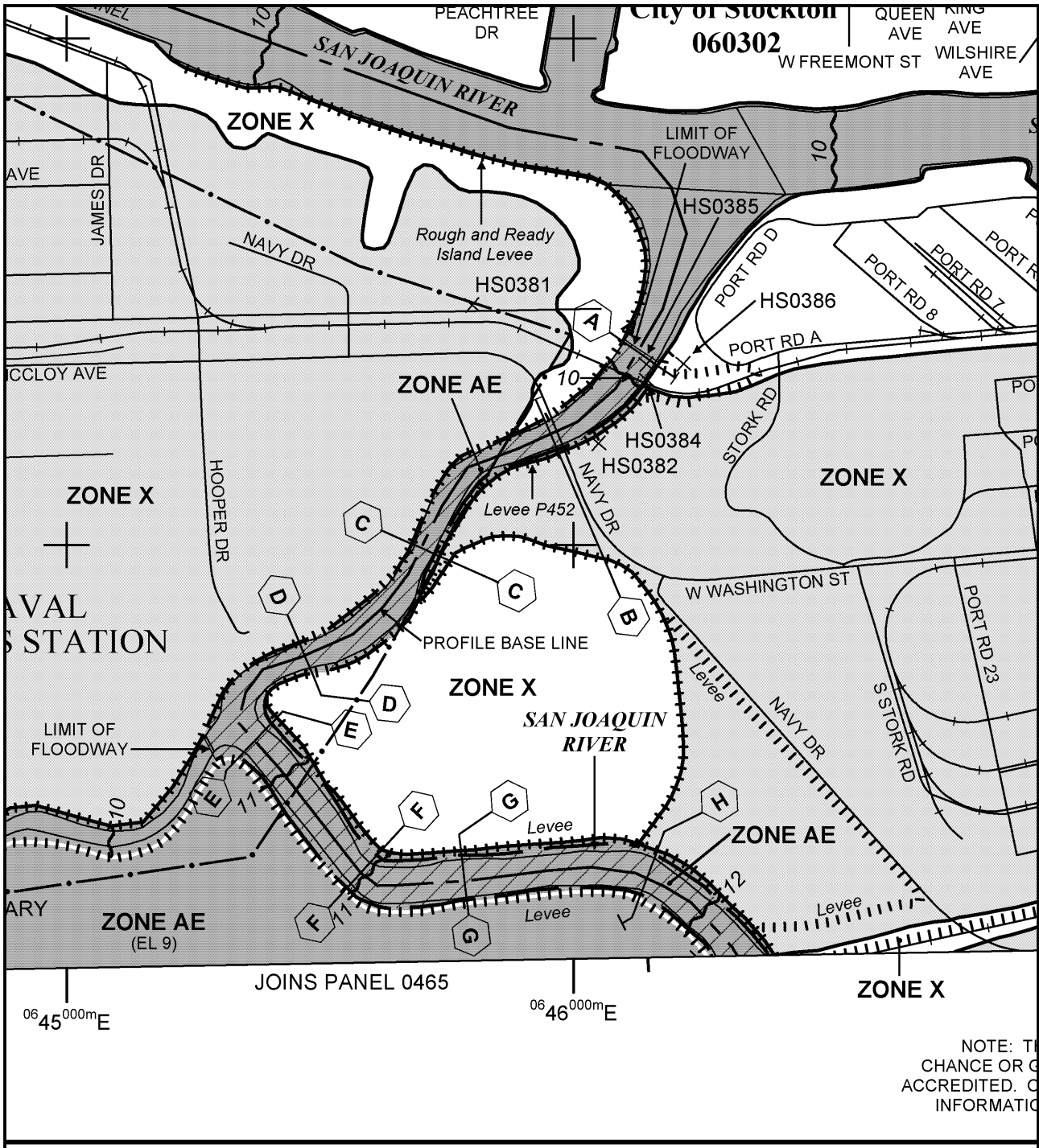
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06077C0455F

EFFECTIVE DATE
OCTOBER 16, 2009

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0455F

FIRM

FLOOD INSURANCE RATE MAP

SAN JOAQUIN COUNTY, CALIFORNIA

AND INCORPORATED AREAS

PANEL 455 OF 950

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

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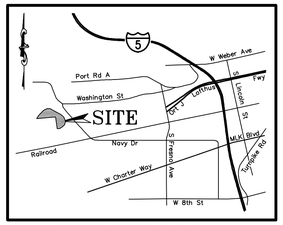
Attachment C: ALTA Survey

ALTA SURVEY SHOWING
TARGA LEASE SITE

A PORTION OF PARCEL "4-S" AS DESCRIBED IN BOOK 251 AT PAGE 138 OFFICIAL RECORDS
OF SAN JOAQUIN COUNTY, CALIFORNIA AND SHOWN PER BOOK 37 OF SURVEYS AT PAGE 010
AT THE PORT OF STOCKTON, CITY OF STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA

AUGUST, 2011



VICINITY MAP

SURVEYOR STATEMENT

TO: STOCKTON PORT DISTRICT, A PORT DISTRICT DULY ORGANIZED AND EXISTING UNDER AND BY VIRTUE OF THE LAWS OF THE STATE OF CALIFORNIA AND PLACER TITLE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN 2011, AND INCLUDES ITEMS 2, 3, 4, 5, 7(A), 8, 11(A), 14, 15, AND 16 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON AUGUST 1, 2011

_____ _____

MICHAEL R. DEQUINE, L.S. 5614 DATE
LICENSE EXPIRES: SEPTEMBER 20, 2012

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS MAP IS THE RECORD OF SURVEY OF THE CITY OF STOCKTO HORIZONTAL CONTROL SYSTEM PHASES XII & XIII FILED IN BOOK 33 OF SURVEYS, PAGE 20.

BENCHMARK

THE ELEVATIONS FOR THIS SURVEY ARE BASED UPON CITY OF STOCKTON BENCHMARK NO. 306, A BRASS DISK MARKING CITY OF STOCKTON MONUMENT STAMPED "10S-2" IN MONUMENT WELL ON WEST SIDE OF TRAFFIC ISLAND AT NAVY DRIVE AND WASHINGTON STREET. THE ELEVATION OF THIS BENCHMARK BEING 8.17' (NAVD88).

FLOOD ZONE

FLOOD ZONE "X"

DESCRIBED AS: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

SOURCE: FLOOD INSURANCE RATE MAP NO. 06077C0455F, EFFECTIVE DATE OCTOBER 16, 2009

PRELIMINARY TITLE REPORT

THIS SURVEY IS BASED ON INFORMATION CONTAINED IN A PRELIMINARY TITLE REPORT ISSUED BY PLACER TITLE COMPANY, DATED AUGUST 15, 2011, ORDER NO. 1001-23275. ITEMS LISTED BELOW ARE SHOWN AS EXCEPTIONS IN SAID TITLE REPORT AND INCLUDE WHETHER OR NOT THEY ARE PLOTTABLE. FOR PURPOSES OF THIS SURVEY THE TERM "SUBJECT PROPERTY" REFERES TO THAT PORTION OF THE 99 ACRE± PARCEL NO. 4-S AS SAID 99 ACRE± PARCEL NO. 4-S IS SHOWN PER BOOK 37 OF SURVEYS, PAGE 010, SAN JOAQUIN COUNTY RECORDS AND DELINEATED HEREON AS "SUBJECT PROPERTY" CONTAINING 16.917± ACRES (ALL DOCUMENTS REFERENCED HEREIN ARE SAN JOAQUIN COUNTY, CALIFORNIA RECORDS):

ITEM 1 TAXES, SPECIAL AND GENERAL, ASSESSMENT DISTRICTS AND SERVICE AREAS FOR THE FISCAL YEAR 2011-2012, A LIEN, NOT YET DUE OR PAYABLE. THIS ITEM CANNOT BE PLOTTED.

ITEM 2 THE LIEN OF SUPPLEMENTAL TAXES, IF ANY, ASSESSED PURSUANT TO THE PROVISIONS OF CHAPTER 3.5, (COMMENCING WITH SECTION 75) OF THE REVENUE AND TAXATION CODE OF THE STATE OF CALIFORNIA. THIS ITEM CANNOT BE PLOTTED.

ITEM 3 TAXES FOR THE FISCAL YEAR 2010-2011 ARE NOT ASSESSED. OWNER IS EXEMPT. THIS ITEM CANNOT BE PLOTTED.

ITEM 4 ANY ADVERSE CLAIM BASED UPON THE ASSERTION THAT: (A) SOME PORTION OF SAID LAND HAS BEEN CREATED BY ARTIFICIAL MEANS, OR HAS ACRETED TO SUCH PORTION SO CREATED, (B) SOME PORTION OF SAID LAND HAS BEEN BROUGHT WITHIN THE BOUNDARIES THEREOF BY AN AVULSIVE MOVEMENT OF SAN JOAQUIN RIVER, OR HAS BEEN FORMED BY ACCRETION TO ANY SUCH PORTION. THIS ITEM CANNOT BE PLOTTED

ITEM 5 RIGHTS AND EASEMENTS FOR COMMERCE, NAVIGATION AND FISHERY OVER THAT PORTION OF SAID LAND LYING BENEATH THE WATERS OF THE SAN JOAQUIN RIVER. THIS ITEM CANNOT BE PLOTTED.

ITEM 6 ANY RIGHTS IN FAVOR OF THE PUBLIC WHICH MAY EXIST ON SAID LAND IF SAID LAND OR PORTIONS THEREOF ARE OR WERE AT ANY TIME USED BY THE PUBLIC. THIS ITEM CANNOT BE PLOTTED.

ITEM 7 AN EASEMENT OVER SAID LAND TO LAY, MAINTAIN AND REMOVE DREDGE DISCHARGE AND INCIDENTAL PURPOSES AS GRANTED TO FRANK S. BOGGS IN DEED REORDED MAY 3, 1929 IN BOOK 251, PAGE 138, OFFICIAL RECORDS. THE EXACT LOCATION OF THIS EASEMENT CANNOT BE DETERMINED FROM THE REFERENCED DOCUMENT AND CANNOT BE PLOTTED.

ITEM 8 AN EASEMENT OVER SAID LAND TO CONSTRUCT AND MAINTAIN LEVEES AND INCIDENTAL PURPOSES AS GRANTED TO THE UNITED STATES OF AMERICA IN DEED RECORDED JUNE 18, 1930, IN BOOK 290, PAGE 162, OFFICIAL RECORDS. THE EXACT LOCATION OF THIS EASEMENT CANNOT BE DETERMINED FROM THE REFERENCE DOCUMENT PROVIDED AND CANNOT BE PLOTTED.

ITEM 9 AN EASEMENT OVER SAID LANDS FOR HIGHWAY AND INCIDENTAL PURPOSES AS GRANTED TO SAN JOAQUIN COUNTY IN DEED RECORDED AUGUST 28, 1939, IN BOOK 642, PAGE 472, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 10 AN EASEMENT OVER SAID LAND FOR SEWER AND INCIDENTAL PURPOSES AS GRANTED TO THE CITY OF STOCKTON IN DEED RECORDED FEBRUARY 9, 2003 IN BOOK 3735, PAGE 385, OFFICIAL RECORDS. THIS ITEM DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 11 AN EASEMENT OVER SAID LAND FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, AS GRANTED TO PACIFIC GAS AND ELECTRIC COMPANY IN DEED RECORDED NOVEMBER 12, 1973 IN BOOK 3817, PAGE 330, OFFICIAL RECORDS. THE EXACT LOCATION OF THIS EASEMENT CANNOT BE DETERMINED FROM THE REFERENCE DOCUMENT AND CANNOT BE PLOTTED.

ITEM 12 AN EASEMENT OVER SAID LAND FOR WATER LINE AND INCIDENTAL PURPOSES AS GRANTED TO THE UNITED STATES OF AMERICA IN DEED RECORDED MAY 27, 1975 IN BOOK 3986, PAGE 367, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 13 AN EASEMENT OVER SAID LAND FOR SANITARY SEWER AND INCIDENTAL PURPOSES AS GRANTED TO THE CITY OF STOCKTON IN DEED RECORDED MARCH 23, 1993 AS INSTRUMENT NO. 93035476, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 14 AN EASEMENT OVER SAID LAND FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES AS GRANTED TO PACIFIC BELL IN DEED RECORDED APRIL 24, 2000 AS INSTRUMENT NO. 44413, OFFICIAL RECORDS. THE EXACT LOCATION OF THIS EASEMENT CANNOT BE DETERMINED FROM THE REFERENCE DOCUMENT AND CANNOT BE PLOTTED.

ITEM 15 UNRECORDED LEASE, BY AND BETWEEN STOCKTON PORT DISTRICT AND DIASHOWA AMERICA CO., LTD A WASHINGTON CORPORATION, AS DISCLOSED BY CONSENT AND SUBORDINATION AGREEMENT, DATED MAY 12, 1993, RECORDED JUNE 25, 1993 AS INSTRUMENT NO. 93073987, OFFICIAL RECORDS, AND ON THE TERMS AND CONDITIONS CONTAINED IN SAID LEASE. THIS ITEM CANNOT BE PLOTTED.

ITEM 16 STATEMENT OF REDEVELOPMENT PLAN BY THE CITY OF STOCKTON RECORDED JULY 12, 2001 AS INSTRUMENT NO. 2001-110158. THIS ITEM CANNOT BE PLOTTED.

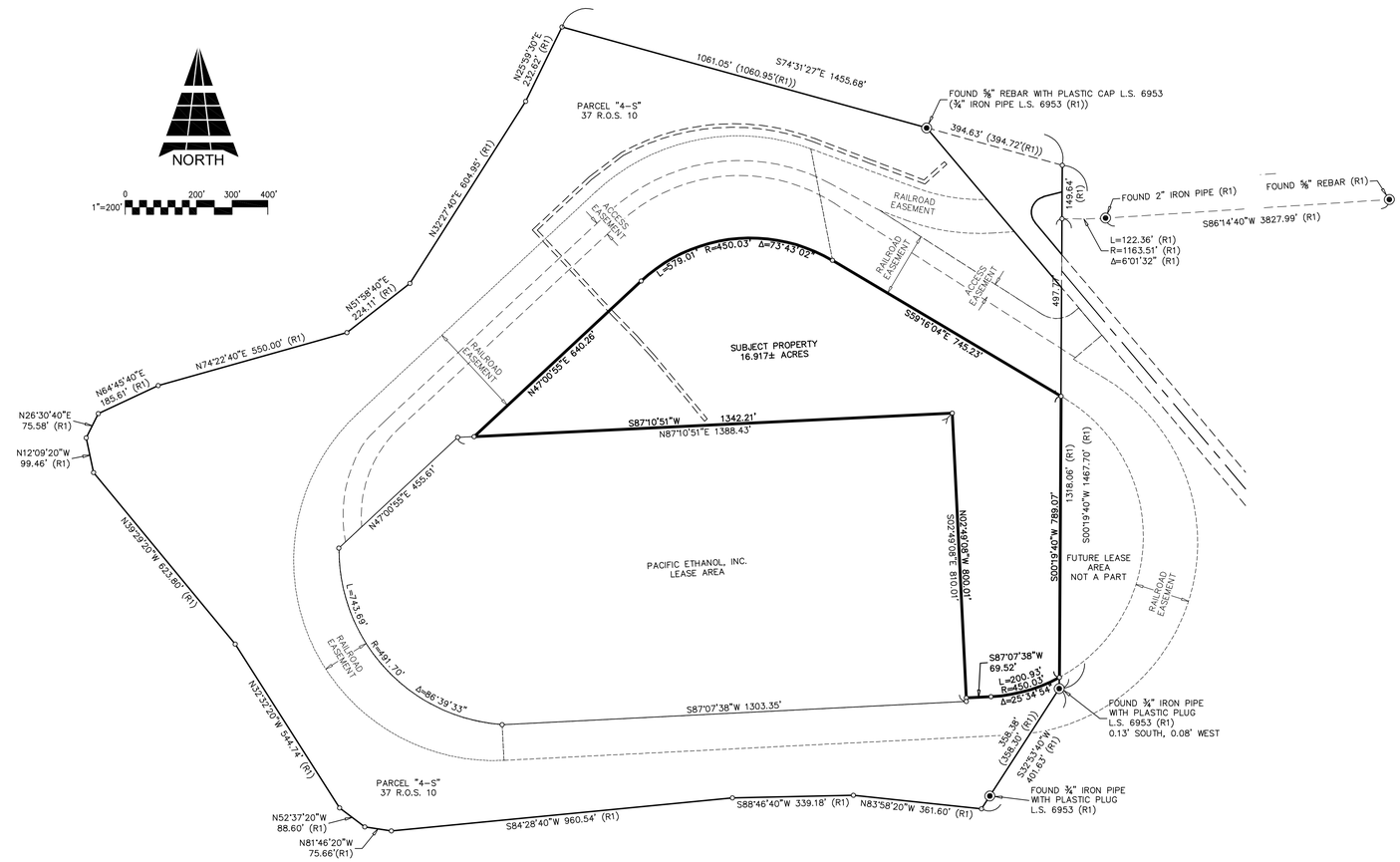
ITEM 17 AN EASEMENT OVER SAID LAND FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES AS GRANTED TO PACIFIC GAS AND ELECTRIC COMPANY IN DEED RECORDED AUGUST 19, 2008 AS INSTRUMENT NO. 2008-136228, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 18 AN EASEMENT OVER SAID LAND FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES AS GRANTED TO PACIFIC GAS AND ELECTRIC COMPANY IN DEED RECORDED AUGUST 19, 2008 AS INSTRUMENT NO. 2008-136229, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.

ITEM 19 AN EASEMENT OVER SAID LAND FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES AS GRANTED TO PACIFIC GAS AND ELECTRIC COMPANY IN DEED RECORDED AUGUST 19, 2008 AS INSTRUMENT NO. 2008-136230, OFFICIAL RECORDS. THIS EASEMENT IS PLOTTABLE AND SHOWN HEREON.

ITEM 20 THE EFFECT OF A RECORD OF SURVEY FILED NOVEMBER 7, 2008 IN BOOK 37 OF SURVEYS, PAGE 010. ANY DISCREPANCIES BETWEEN THIS SURVEY AND THE 99 ACRE± PARCEL SHOWN PER BOOK 37 OF SURVEYS, PAGE 010 AFFECT THE NORTHERLY LINE OF THE 99 ACRE± PARCEL AND DO NOT AFFECT THE SUBJECT PROPERTY.

ITEM 21 AN EASEMENT OVER SAID LAND FOR SANITARY SEWER FORCE MAIN AND INCIDENTAL PURPOSES AS GRANTED TO THE CITY OF STOCKTON IN DEED RECORDED JANUARY 26, 2011 AS INSTRUMENT NO. 2011-010907, OFFICIAL RECORDS. THIS EASEMENT DOES NOT AFFECT THE SUBJECT PROPERTY.



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ALTA SURVEY SHOWING

TARGA LEASE SITE

A PORTION OF PARCEL "4-S" AS DESCRIBED IN BOOK 251 AT PAGE 138 OFFICIAL RECORDS
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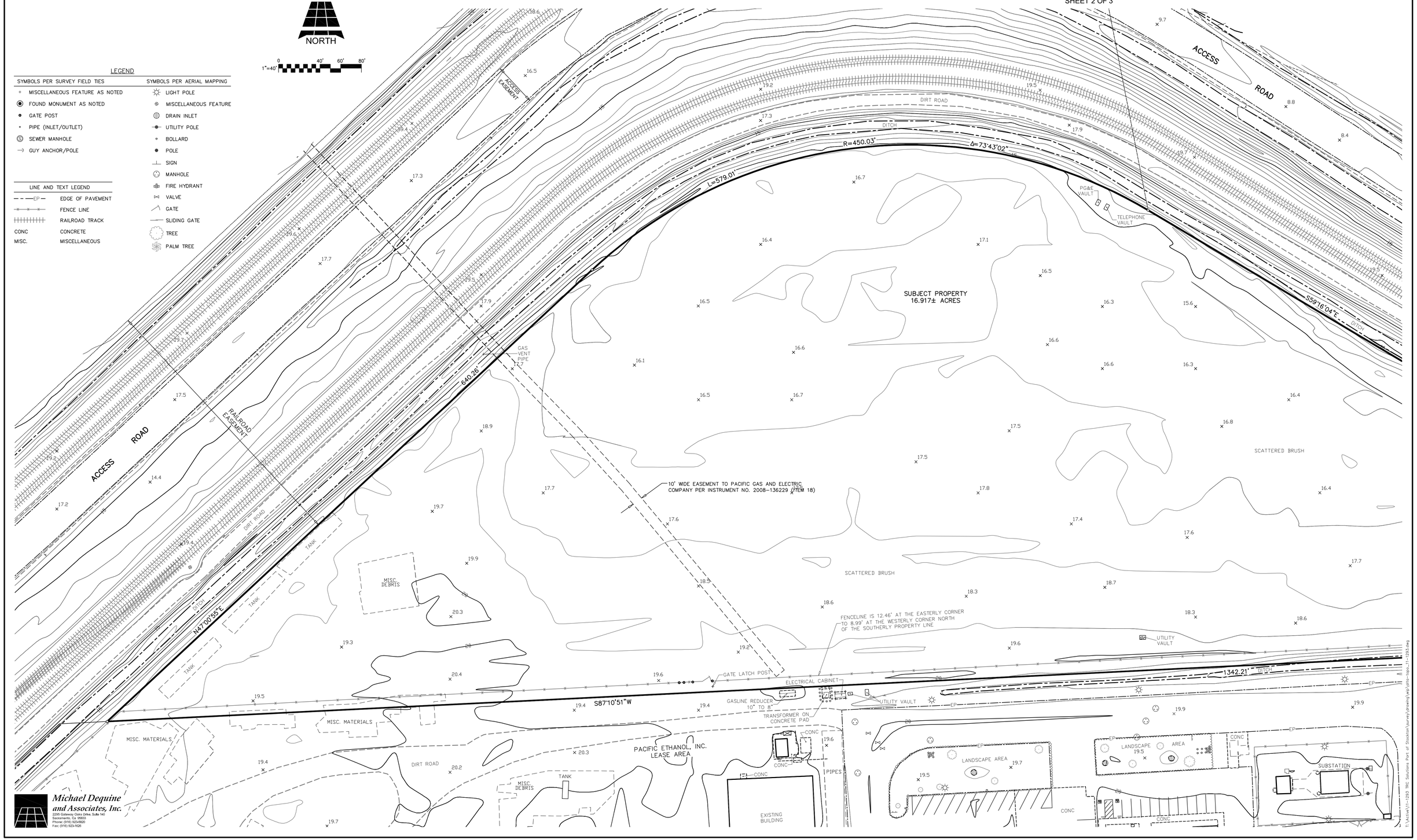
AUGUST, 2011

SHEET 2 OF 3



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ALTA SURVEY SHOWING

TARGA LEASE SITE

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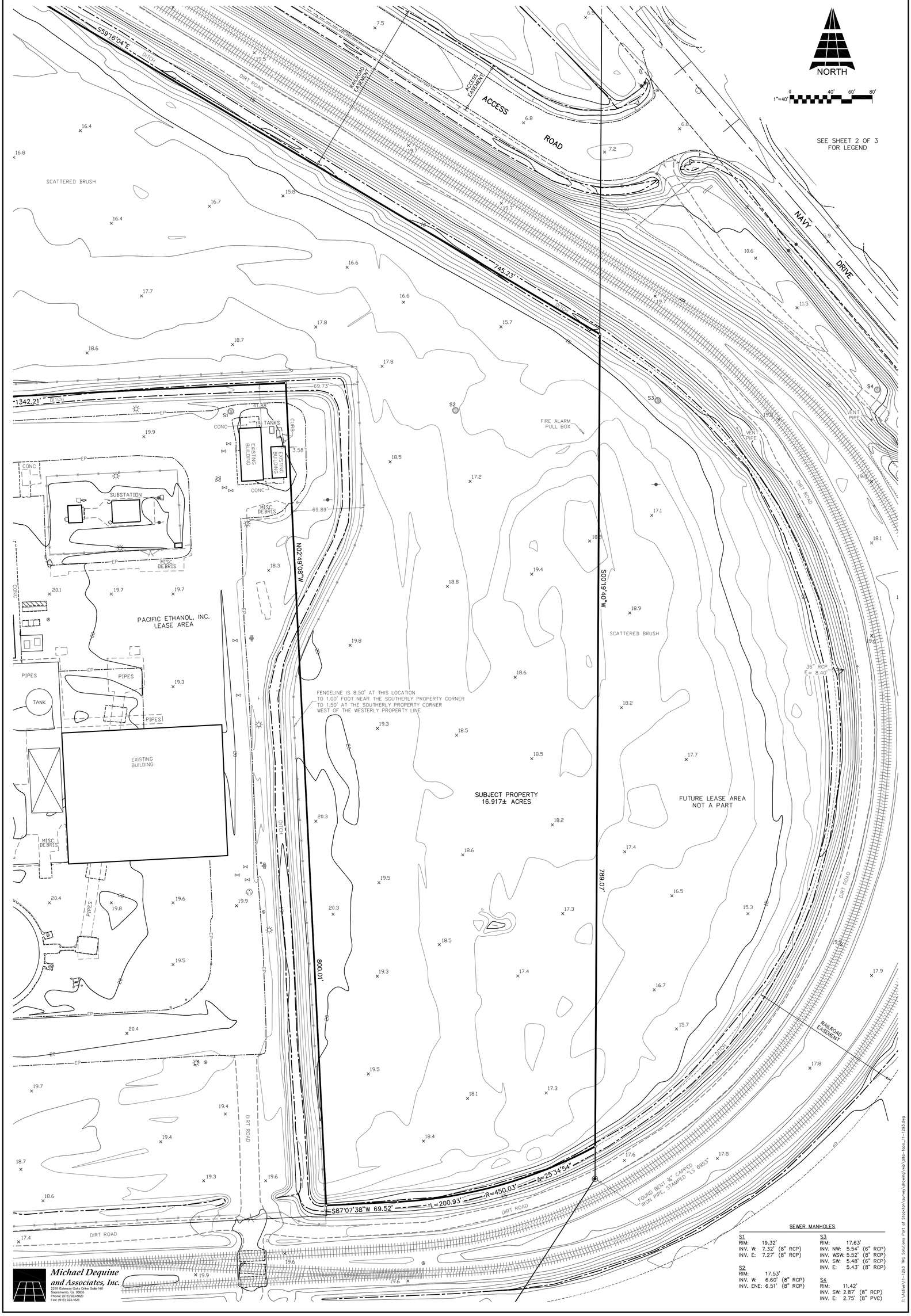
AUGUST, 2011

SHEET 3 OF 3



SEWER MANHOLES

S1	S3
RIM: 19.32'	RIM: 17.63'
INV. W: 7.32' (8" RCP)	INV. NW: 5.54' (6" RCP)
INV. E: 7.27' (8" RCP)	INV. WSW: 5.52' (8" RCP)
	INV. SW: 5.48' (6" RCP)
	INV. E: 5.43' (8" RCP)

S2	S4
RIM: 17.53'	RIM: 11.42'
INV. W: 6.60' (8" RCP)	INV. SW: 2.87' (8" RCP)
INV. ENE: 6.51' (8" RCP)	INV. E: 2.75' (8" PVC)

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CEQA Lead Agency
Stockton Port District
2201 West Washington Street
P.O. Box 2089
Stockton, CA 95201
Contact: Jason P. Cashman, Environmental Specialist
www.portofstockton.com